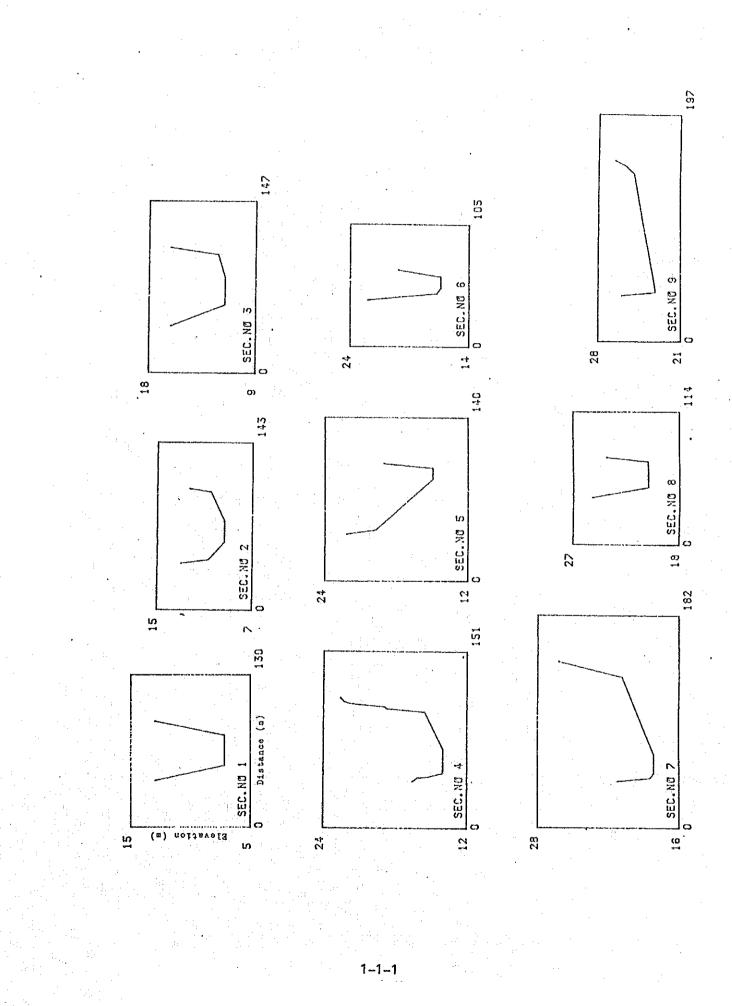
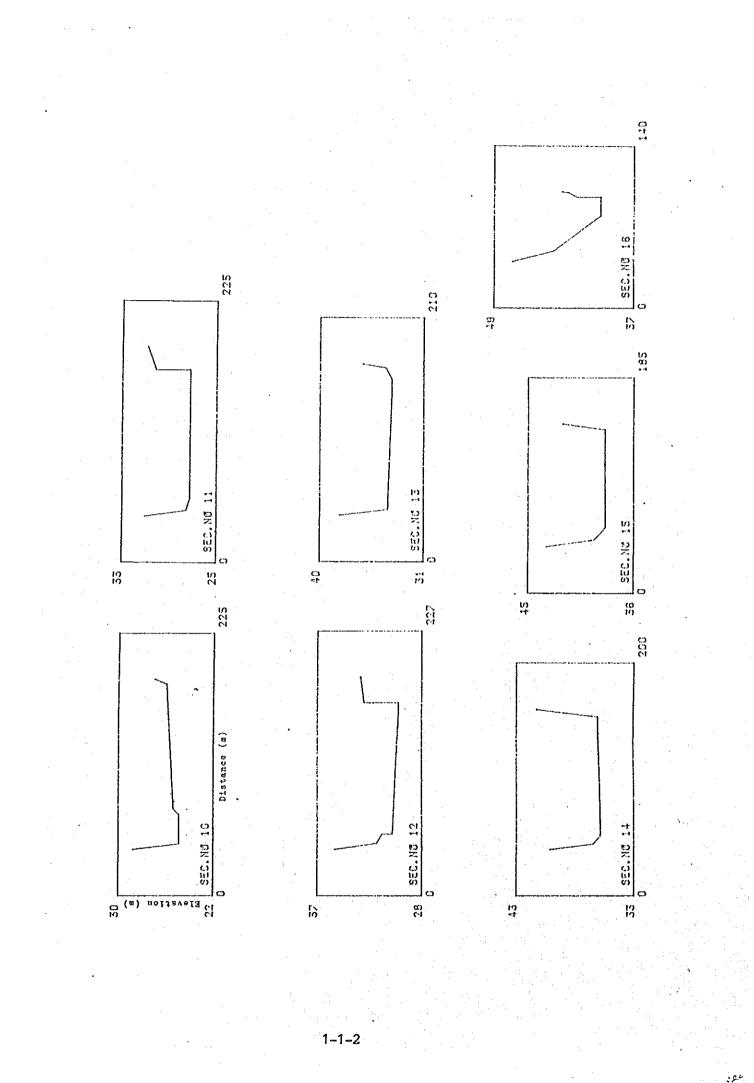
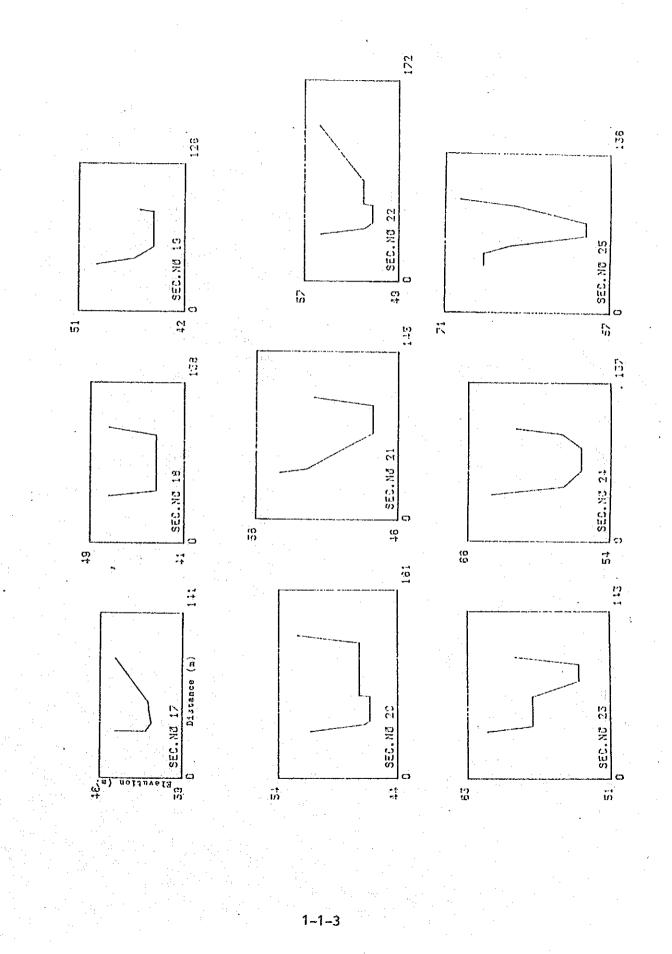
II-2 <u>River Cross Sections</u>

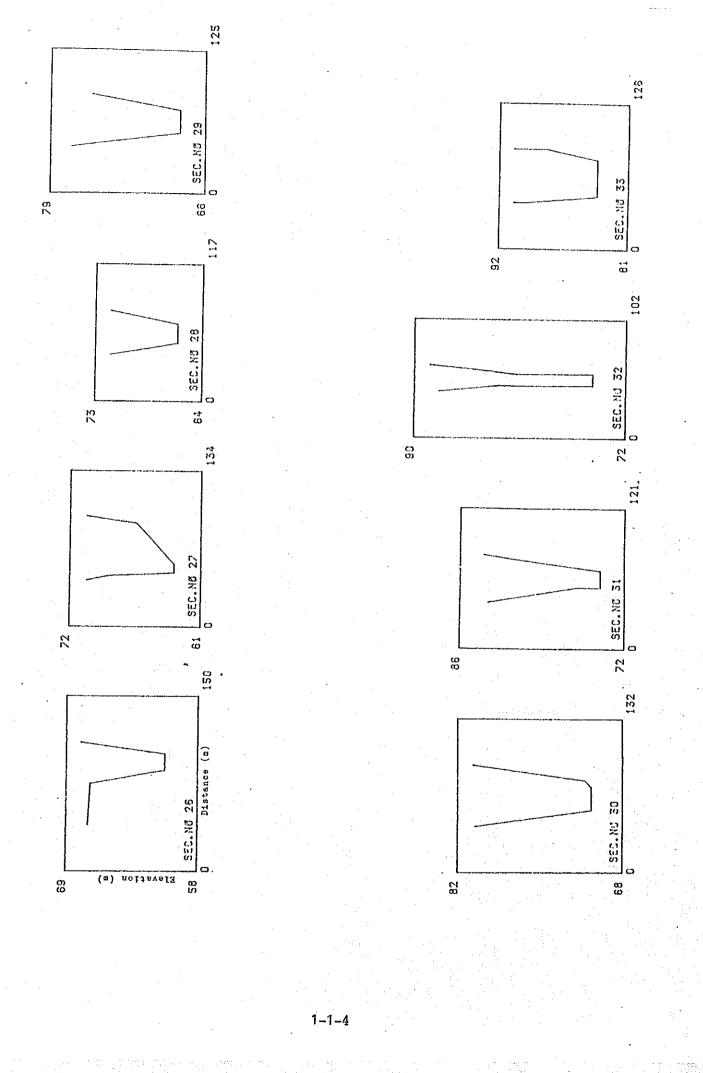
5.93

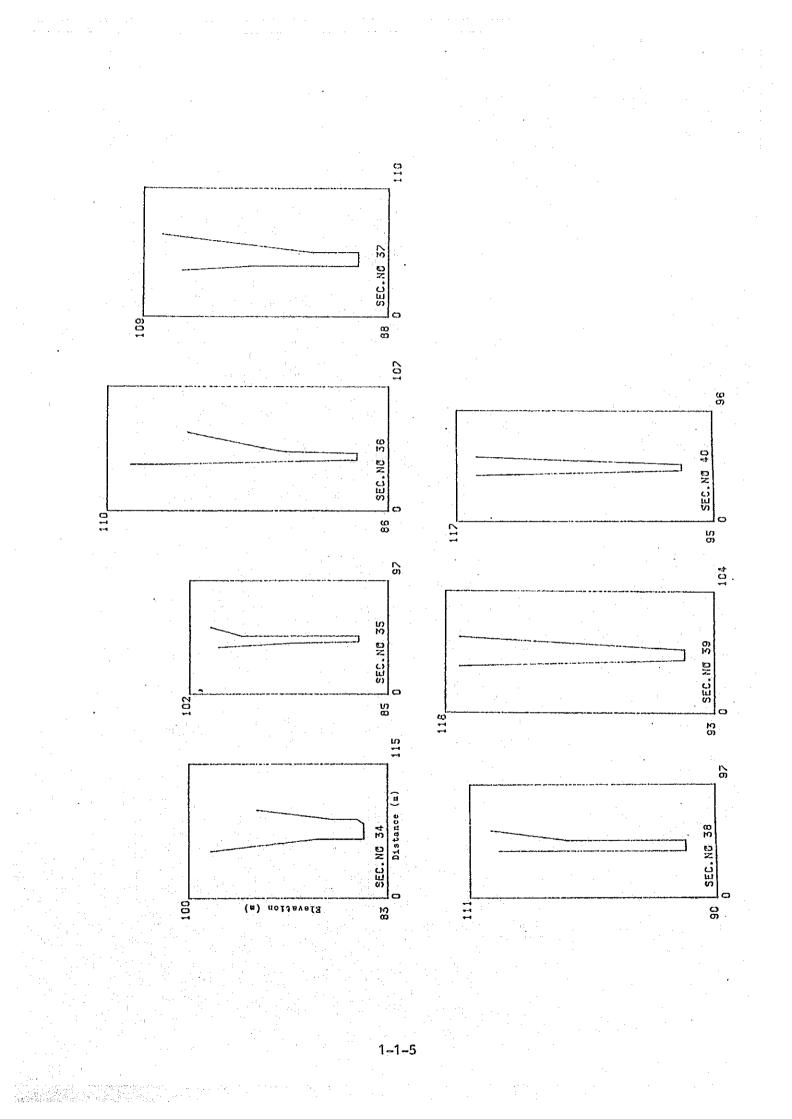


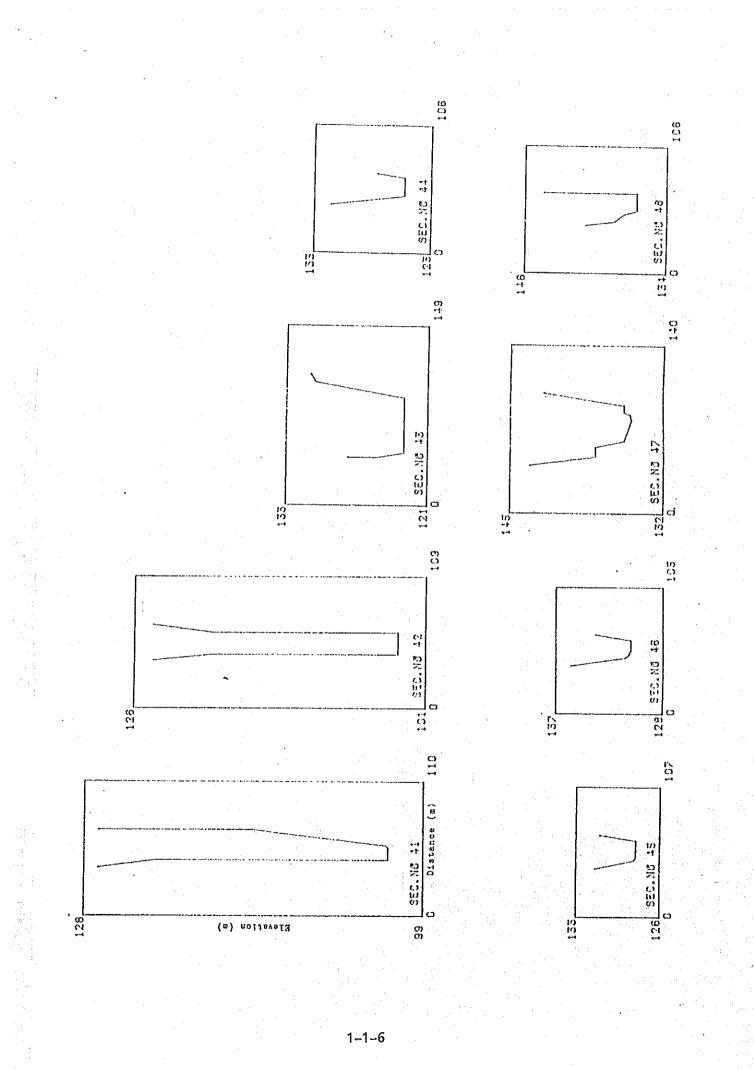




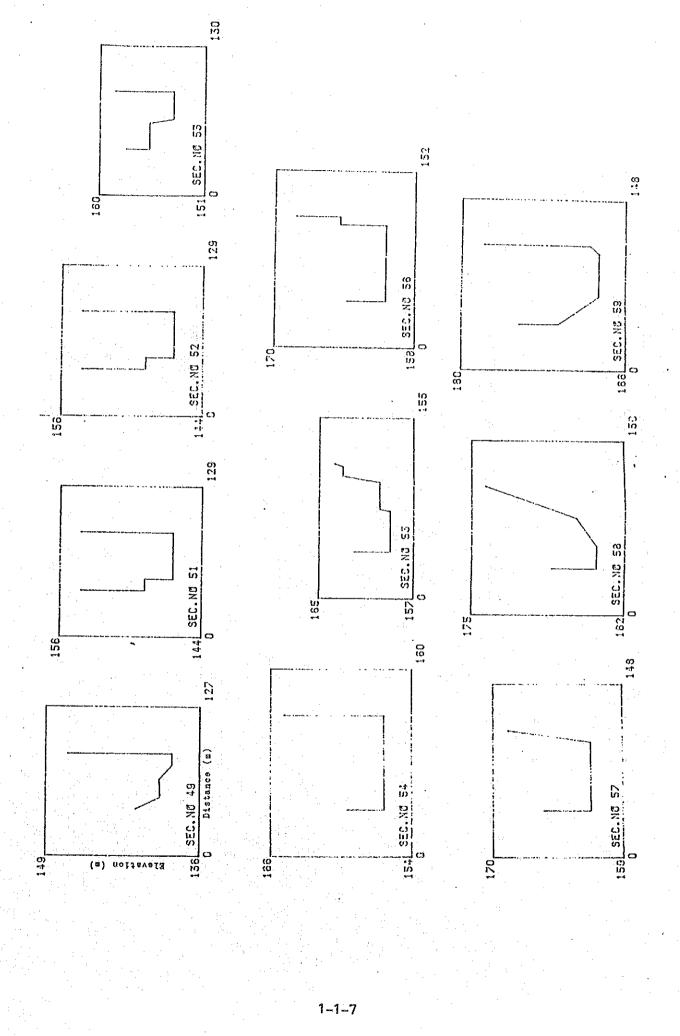
. . . .

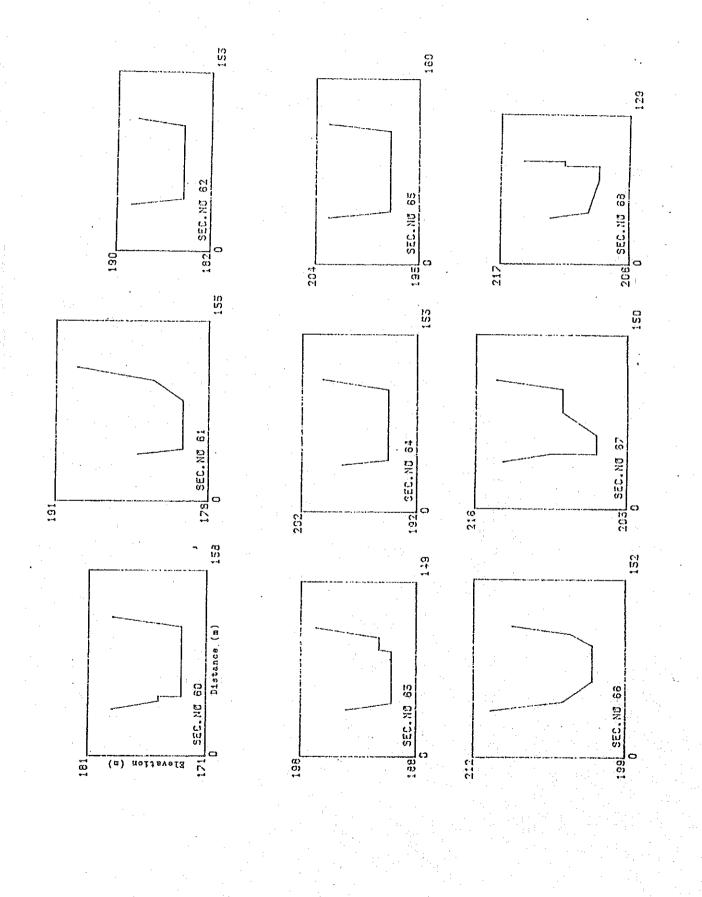


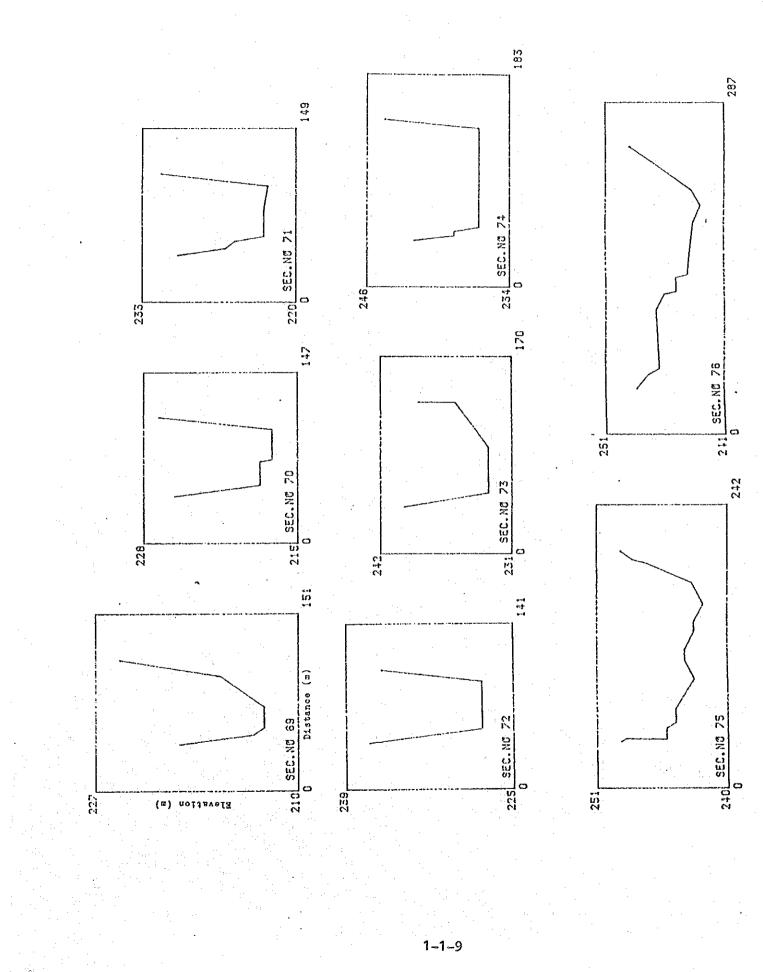


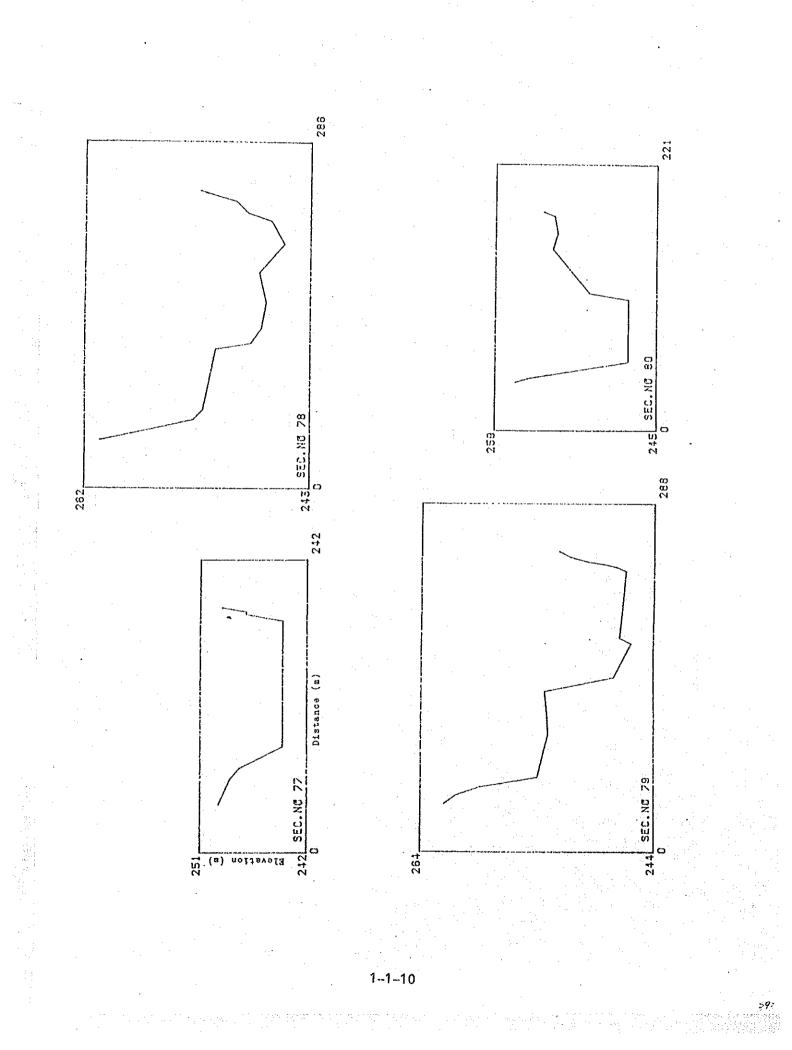


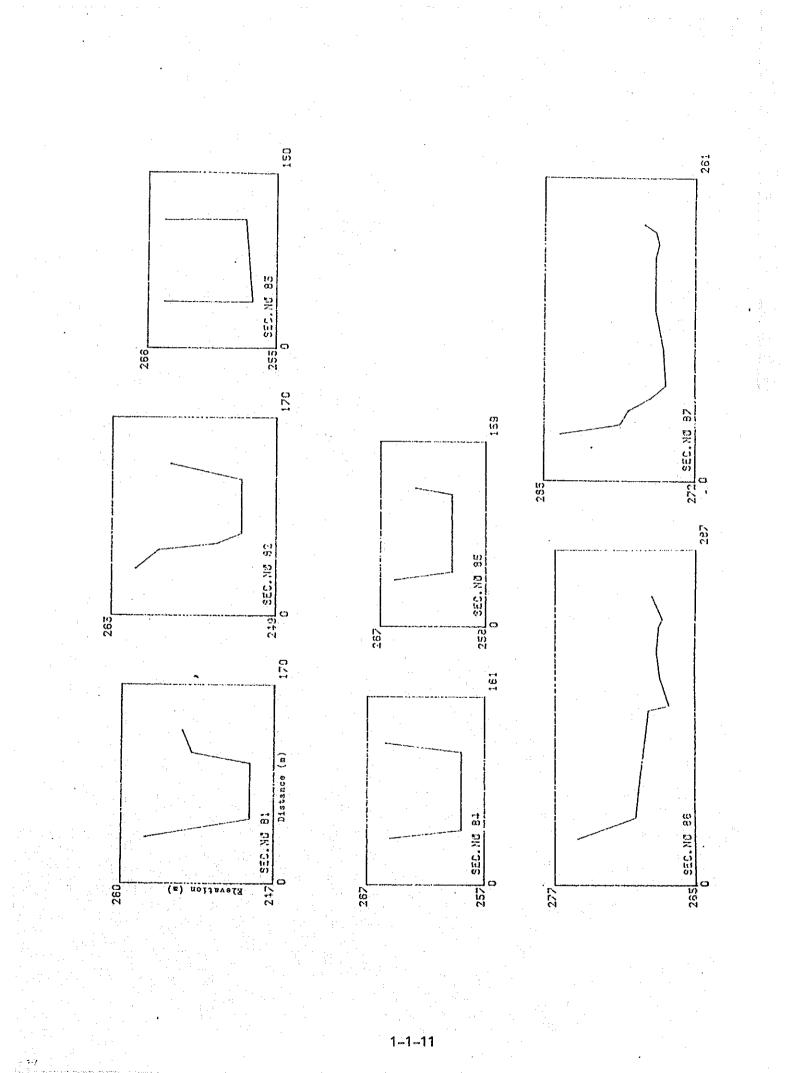
ړو.

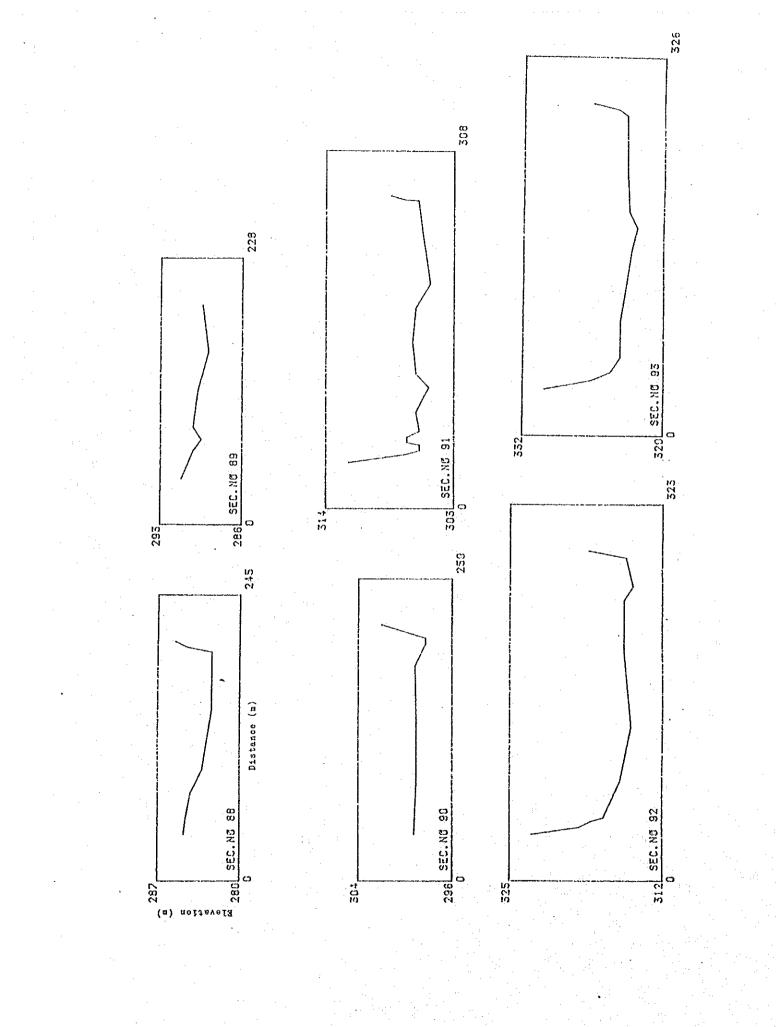




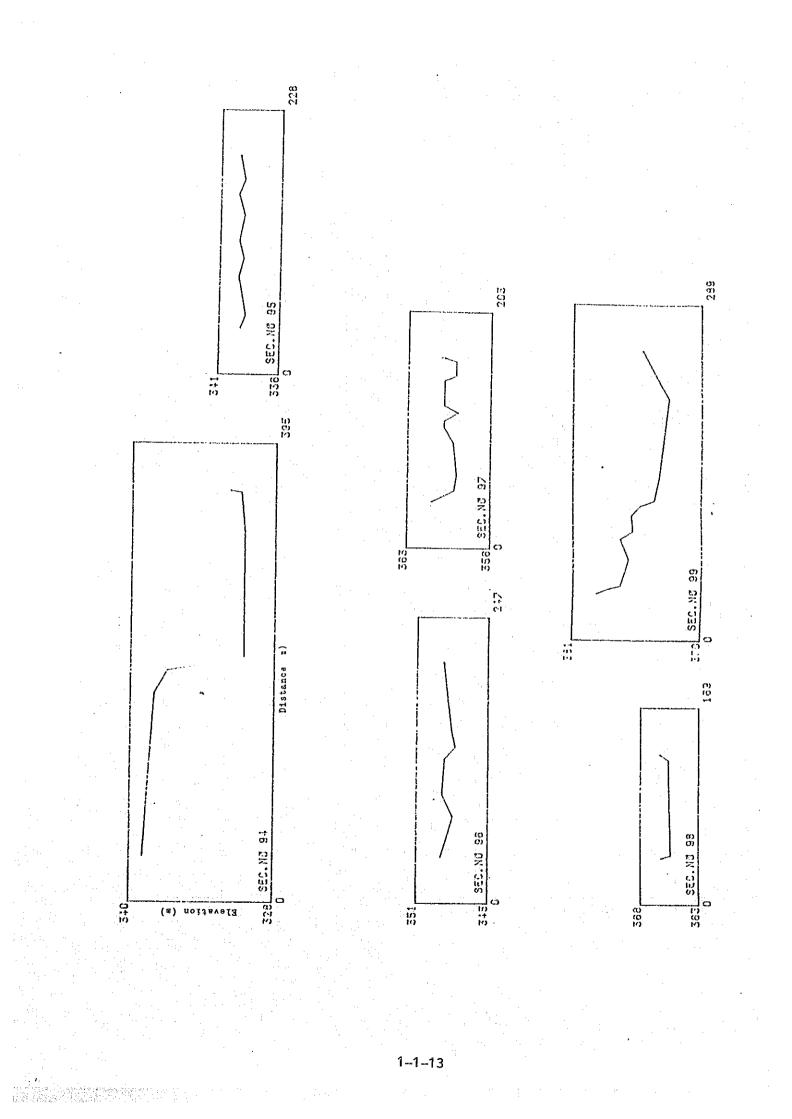


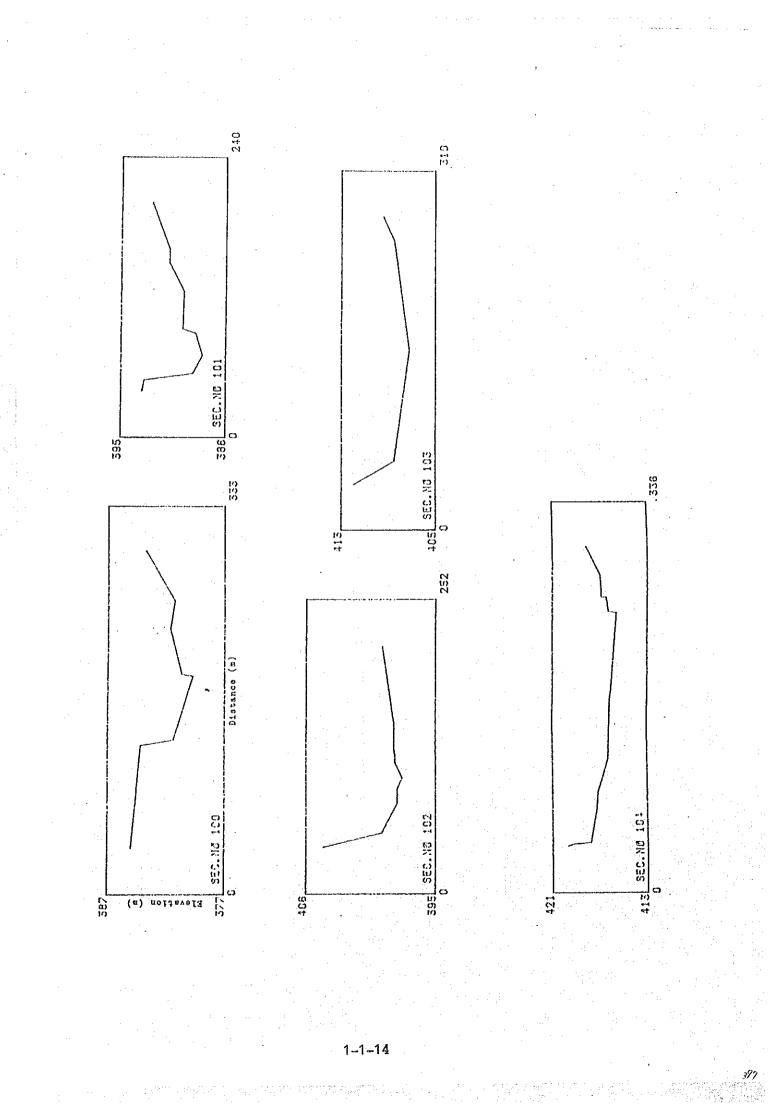


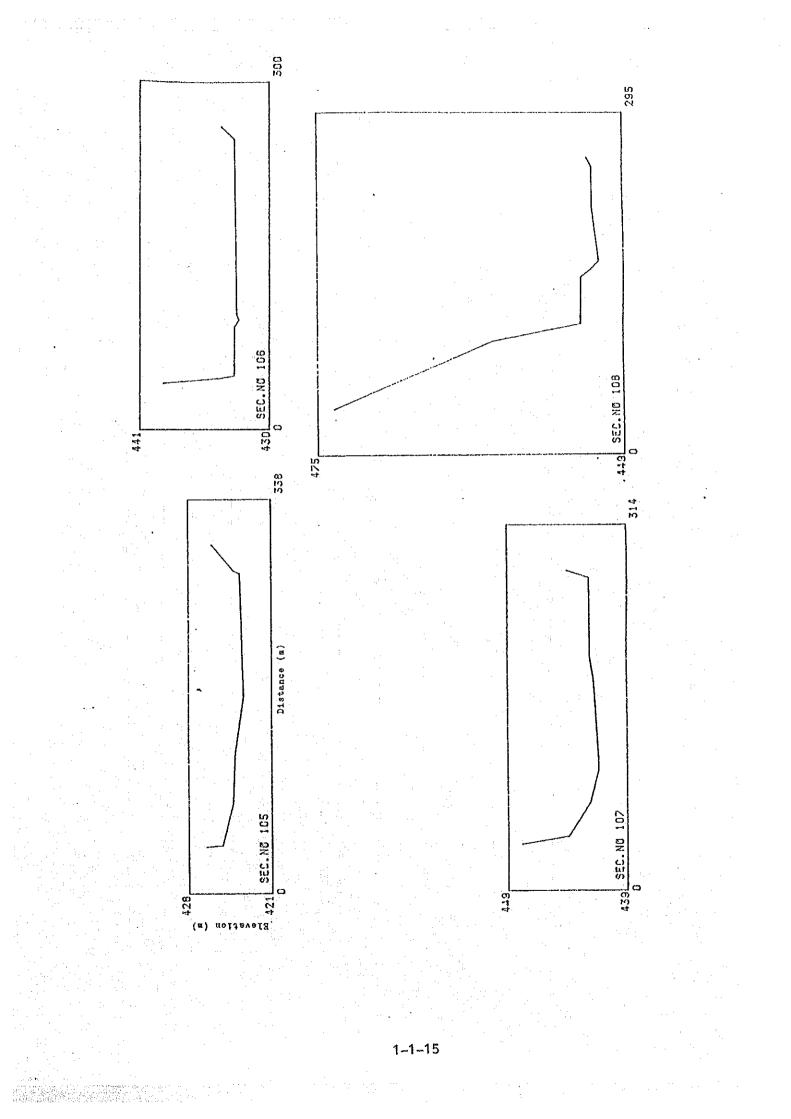


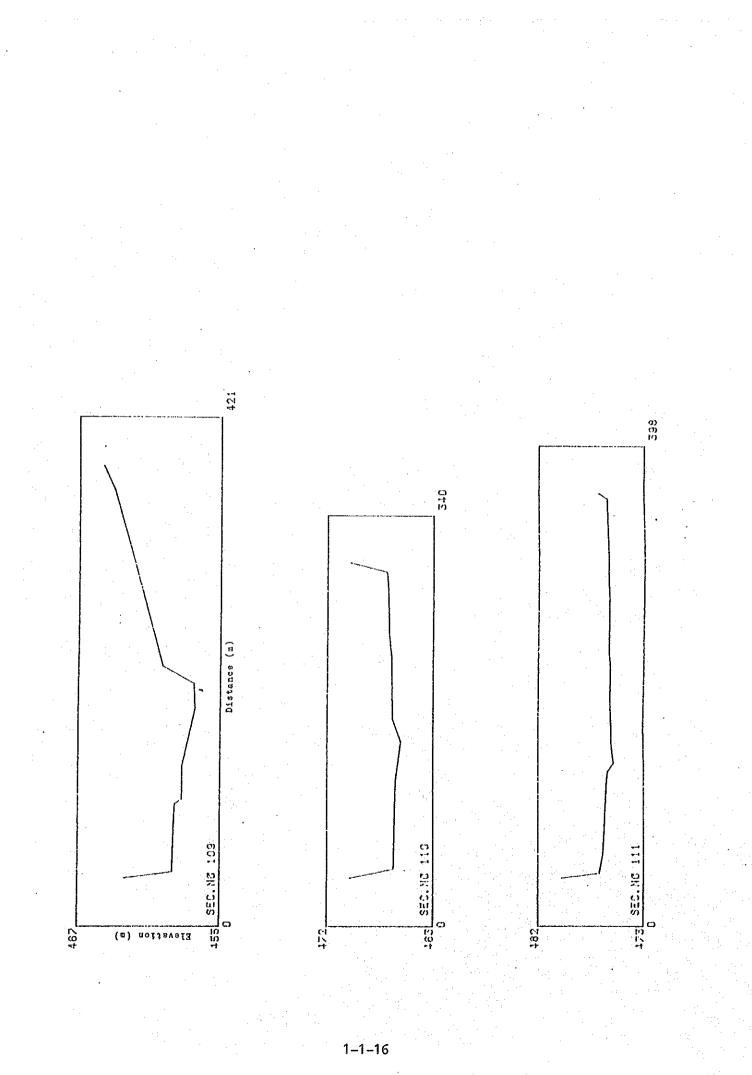


:90

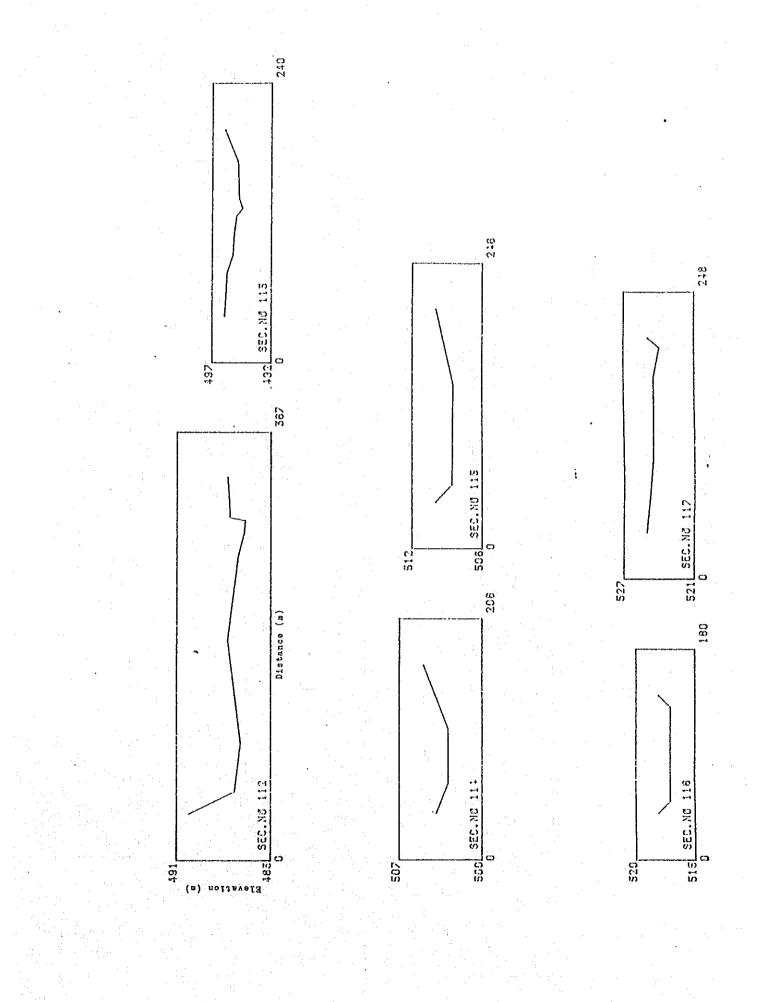


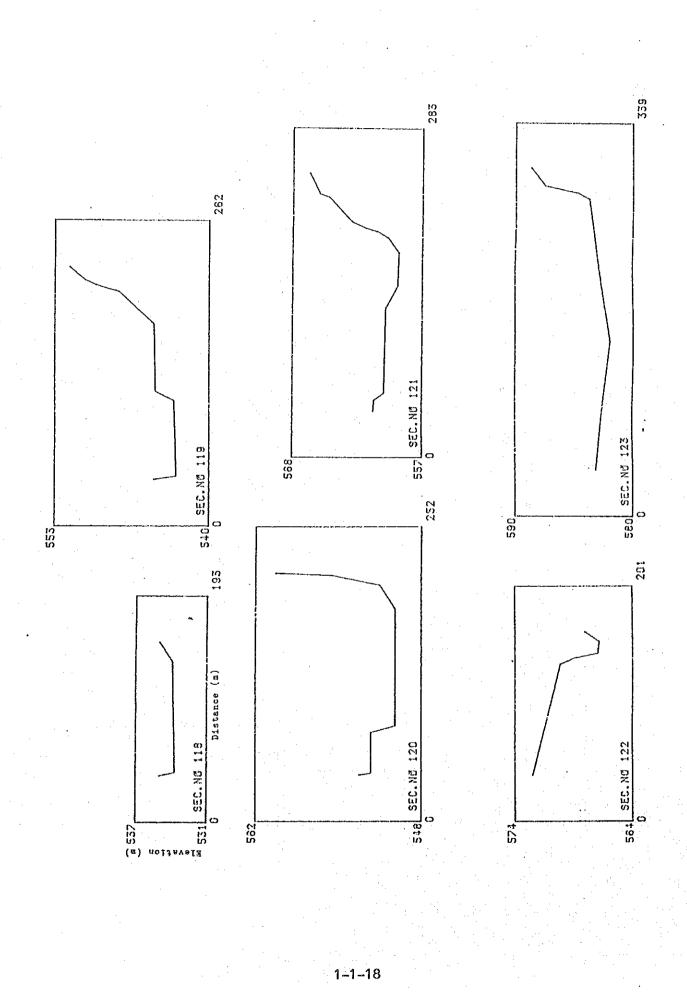






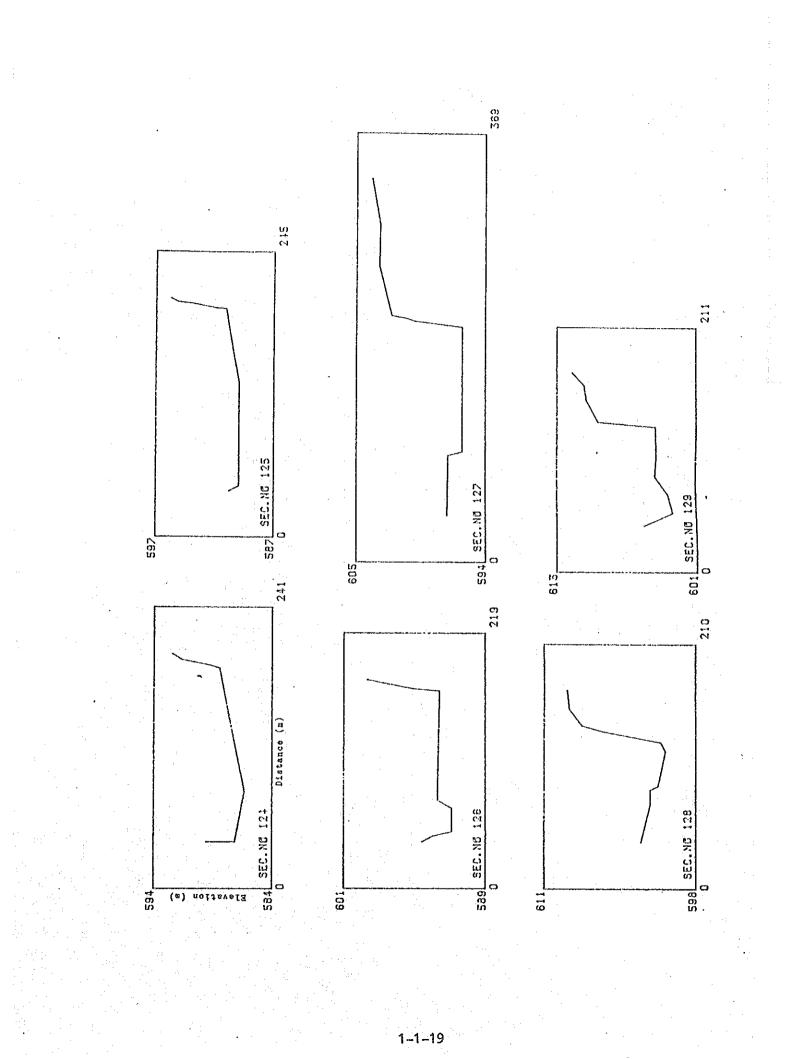
://I

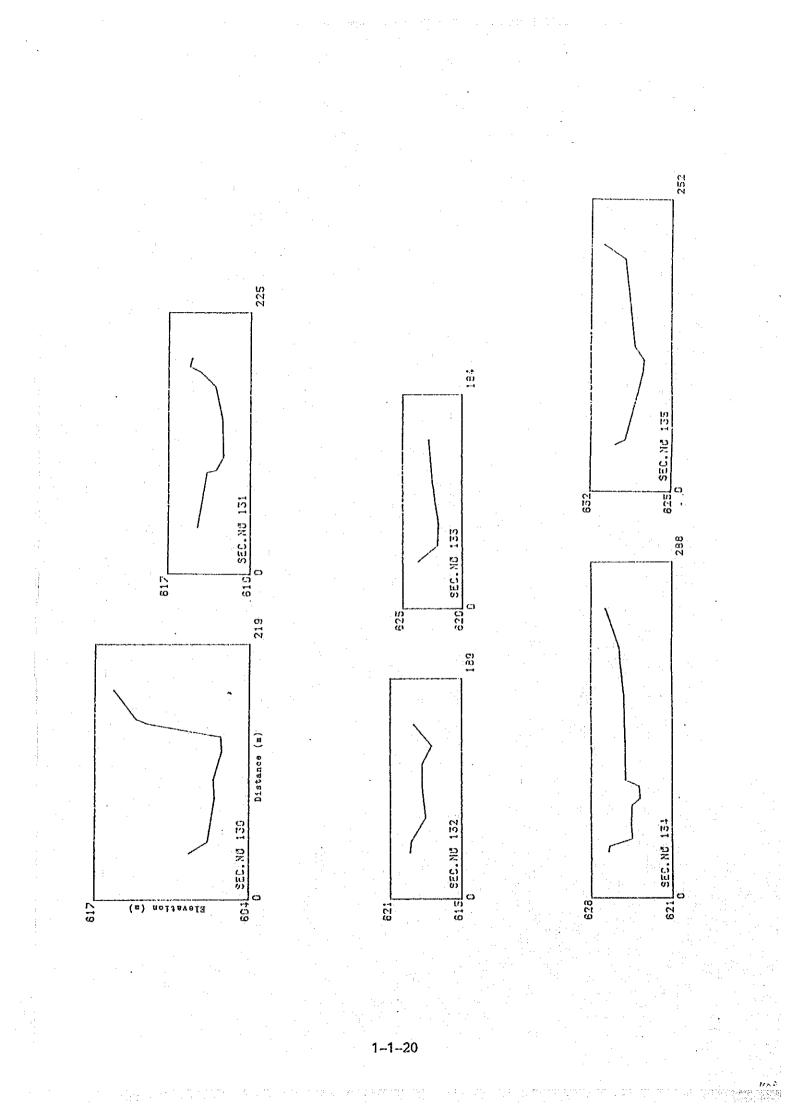


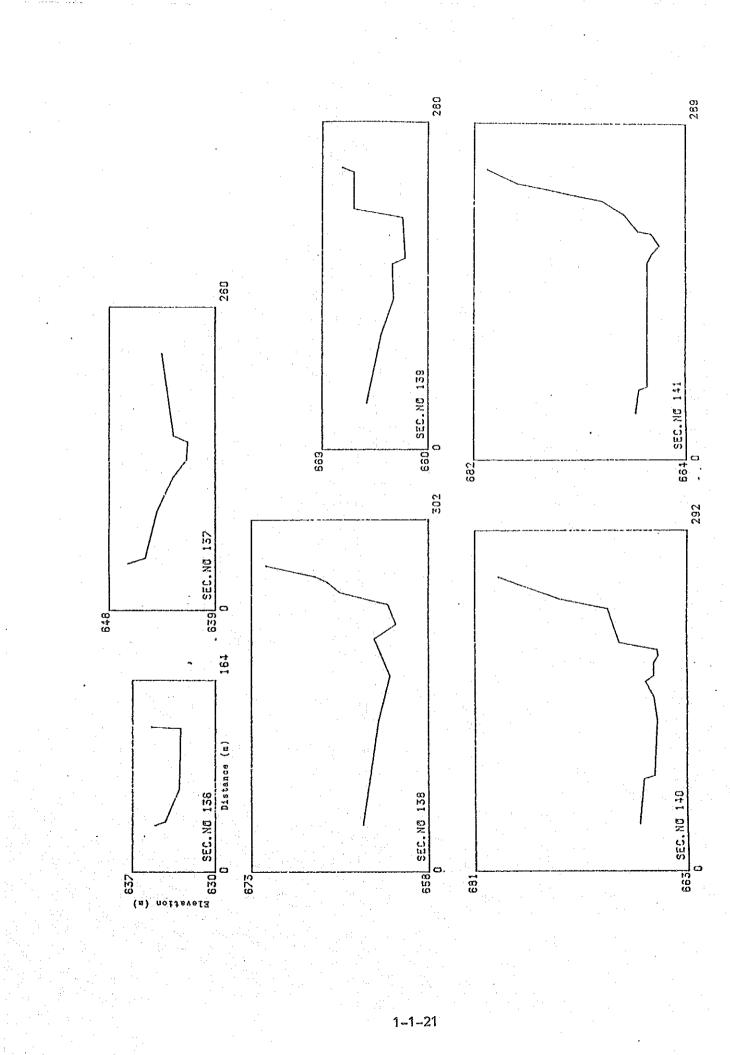


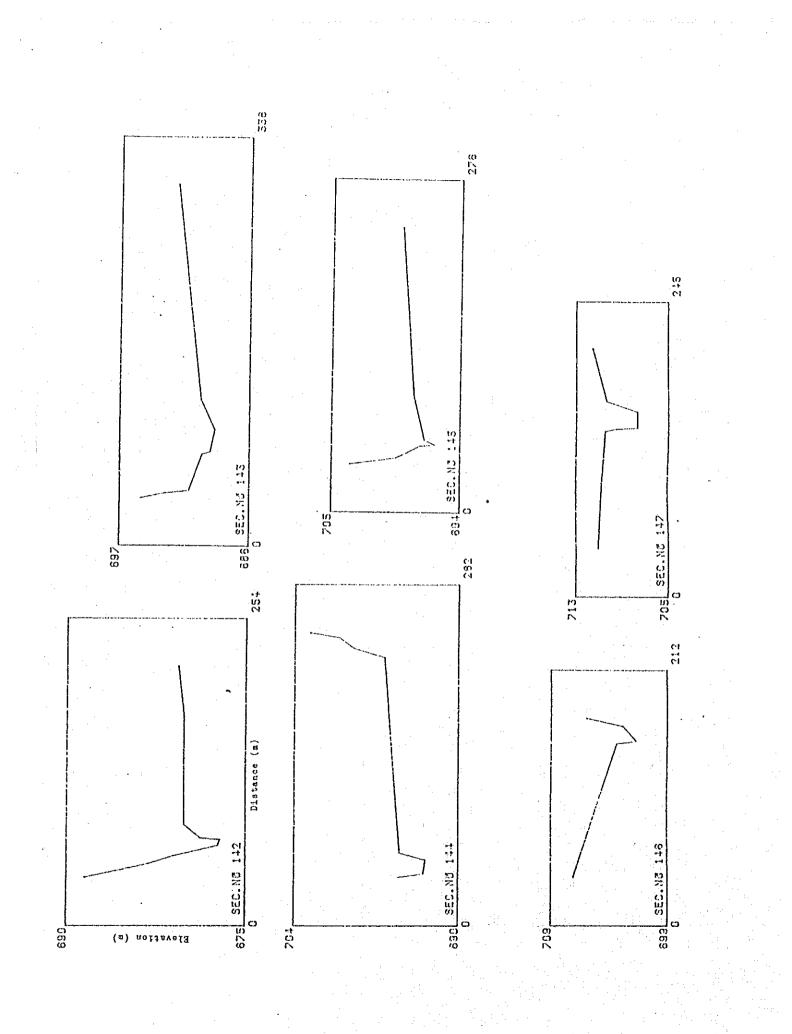
. ,

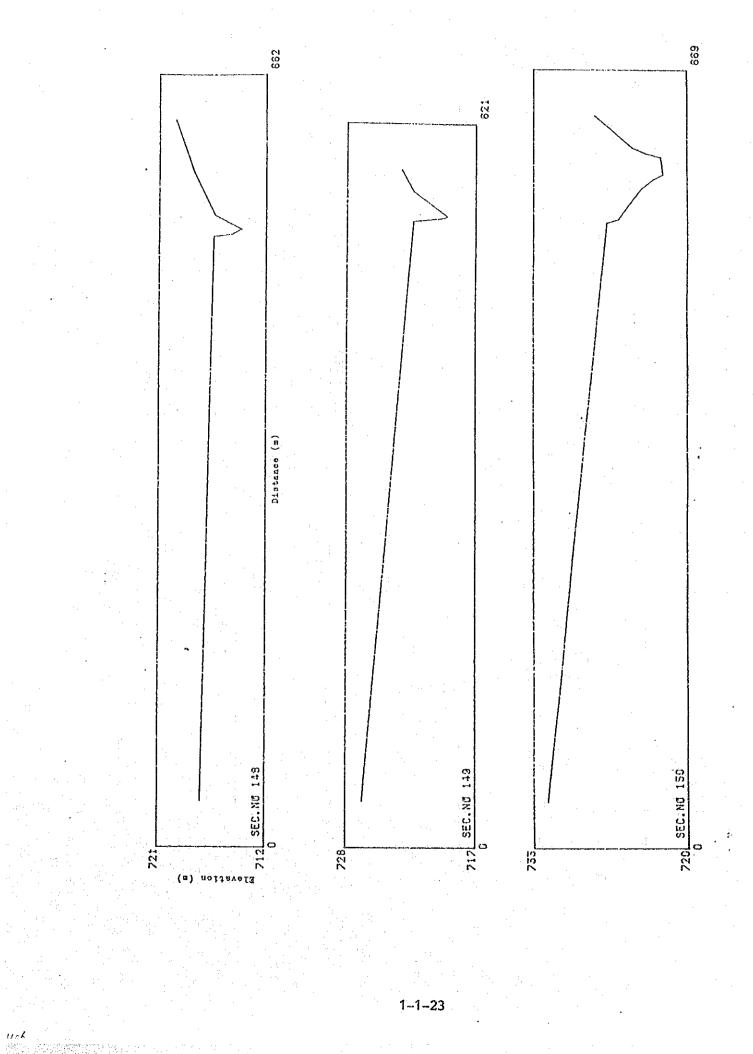
U.S.I

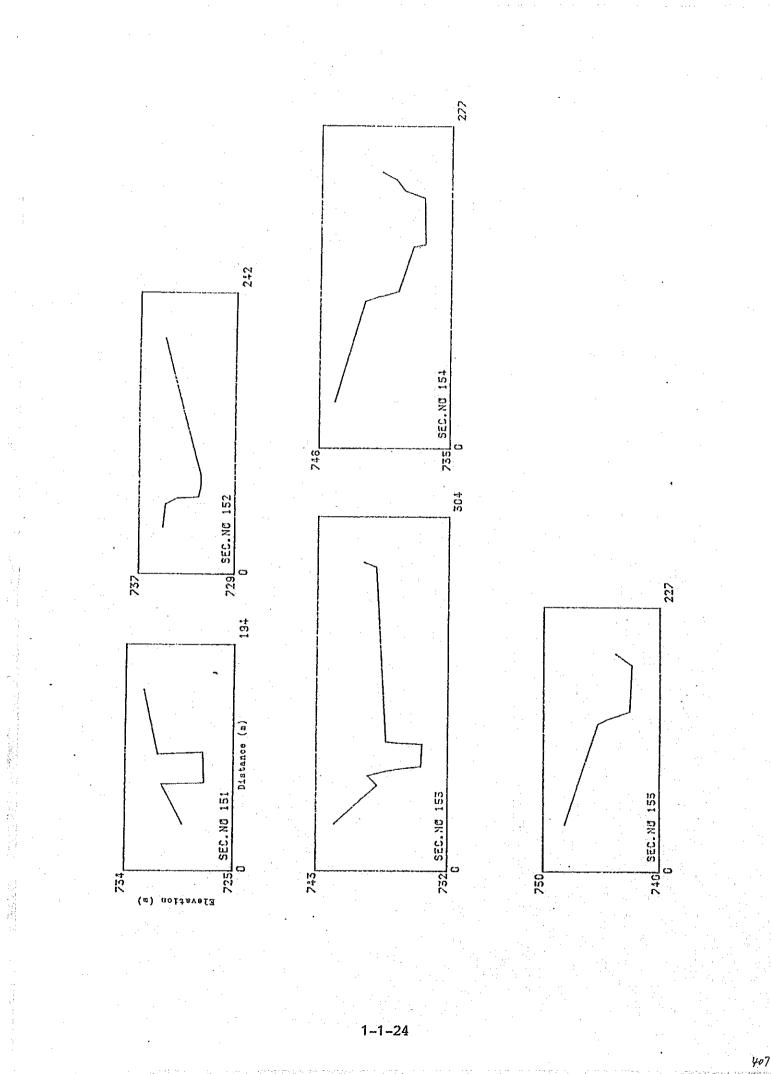


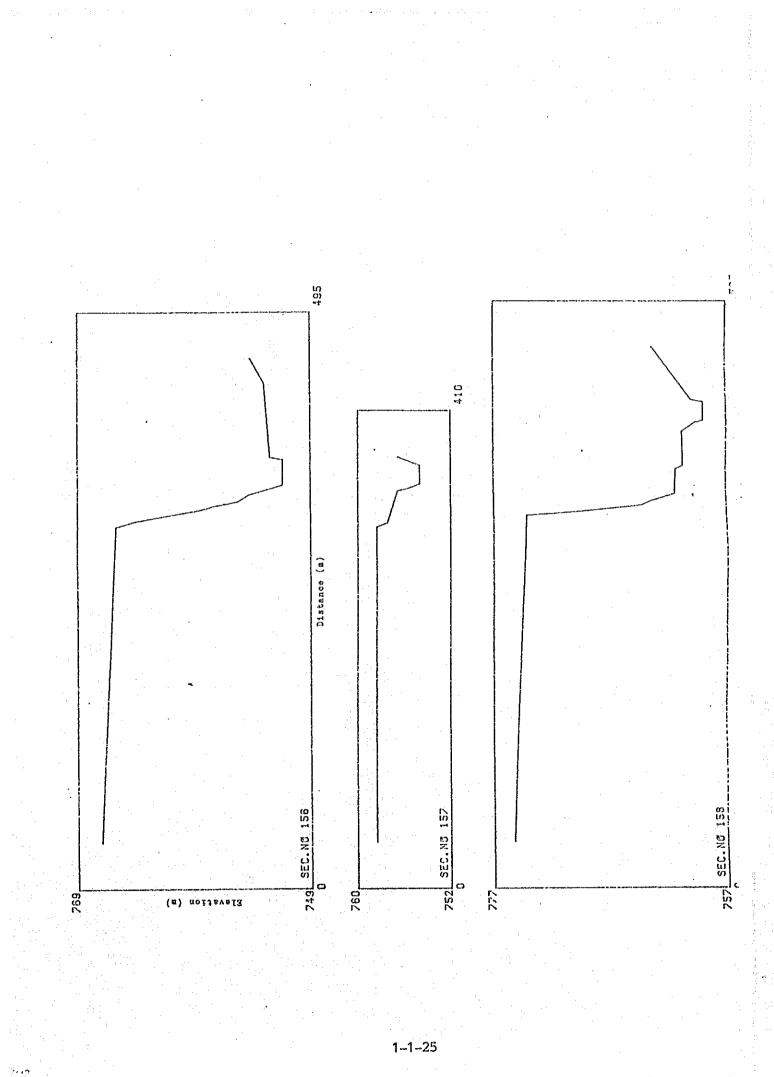


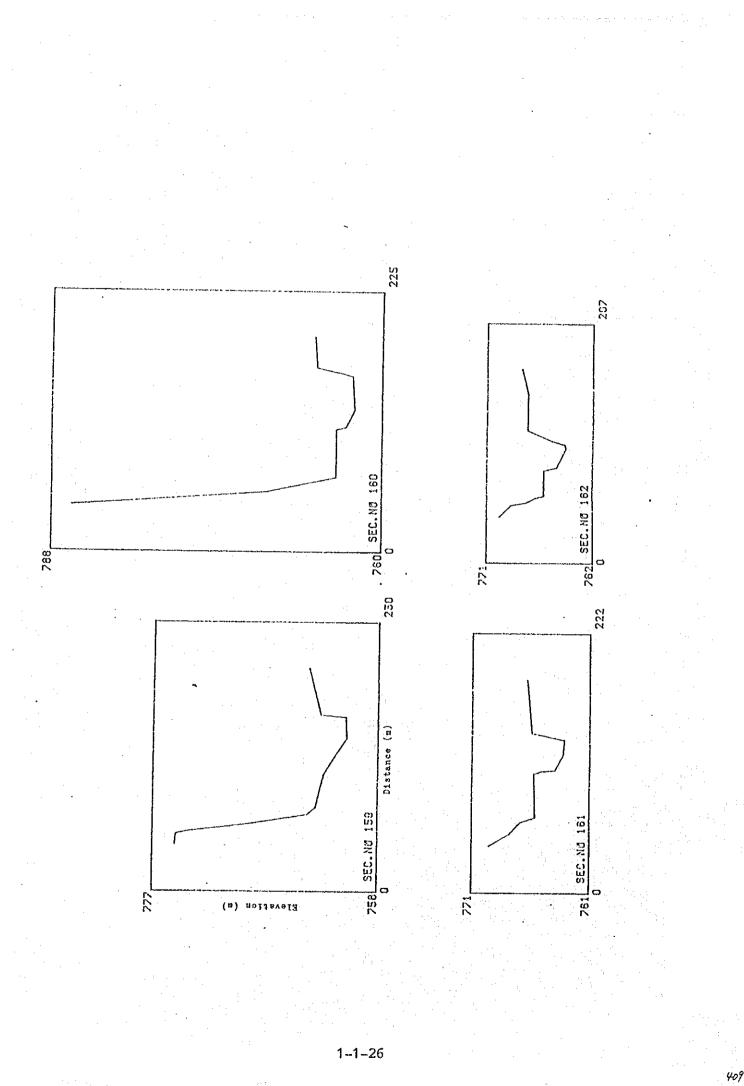


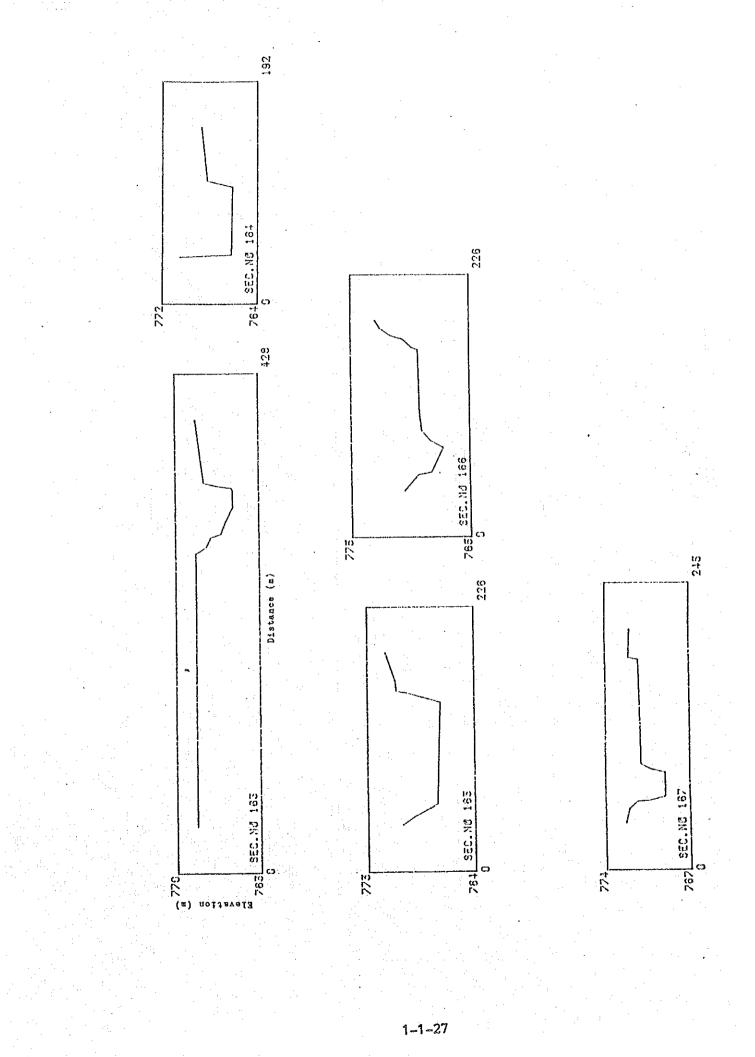


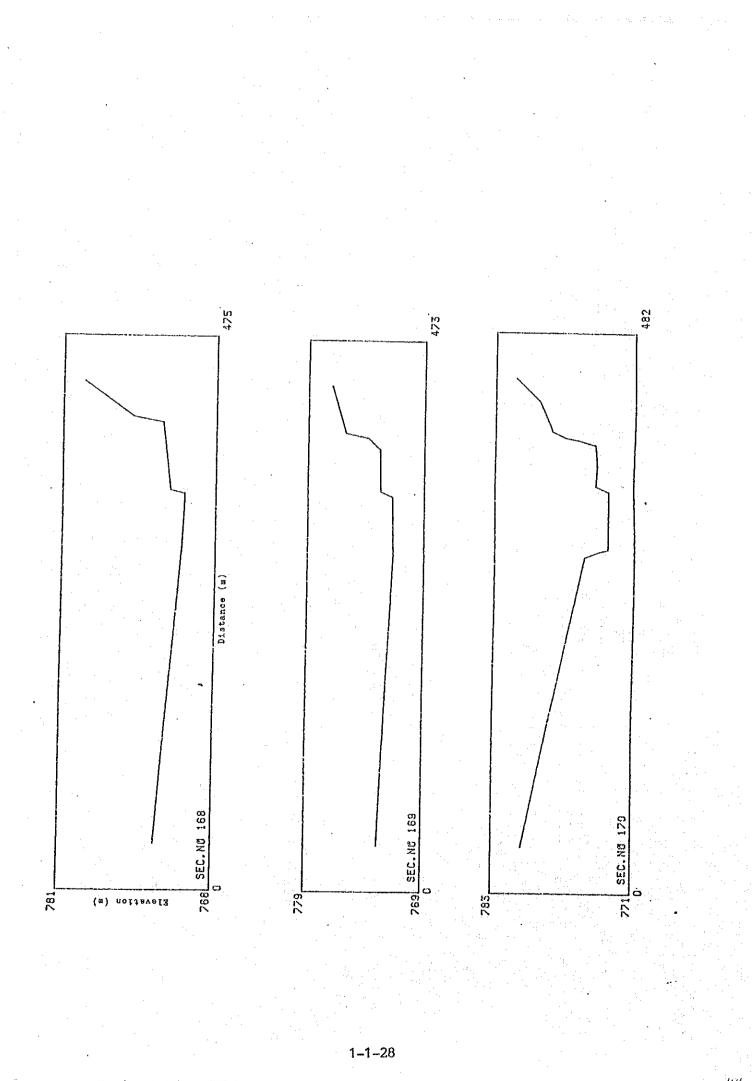




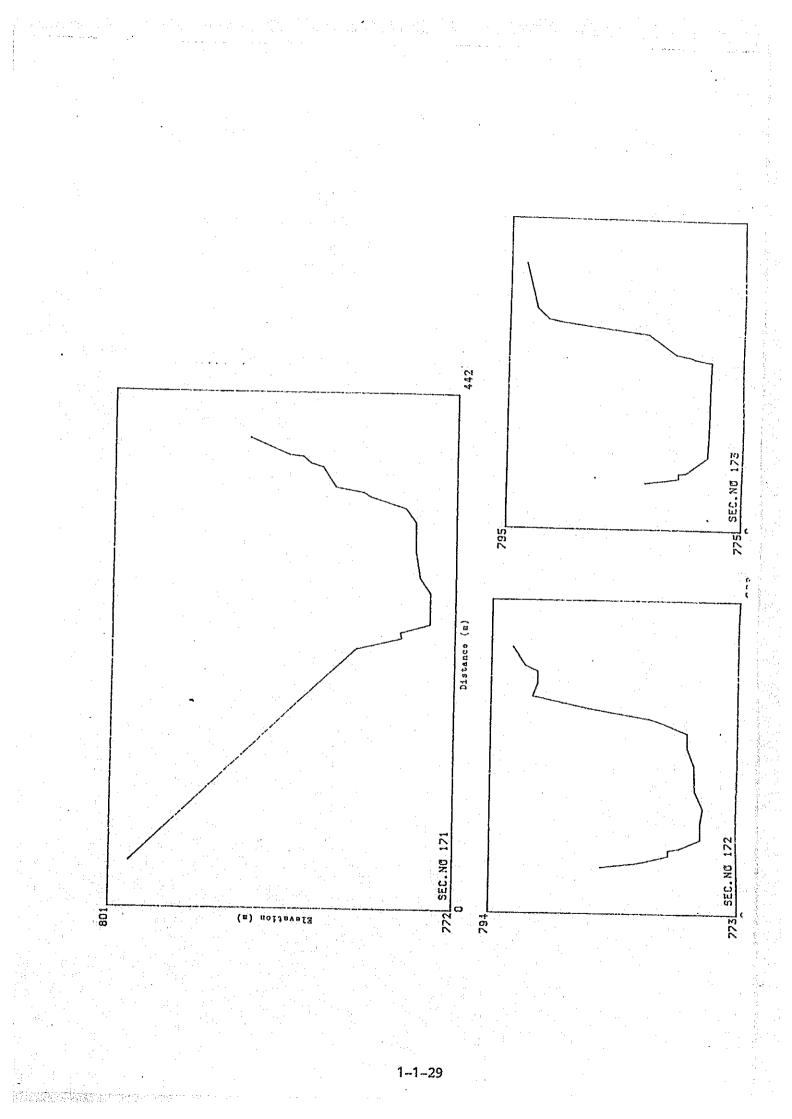


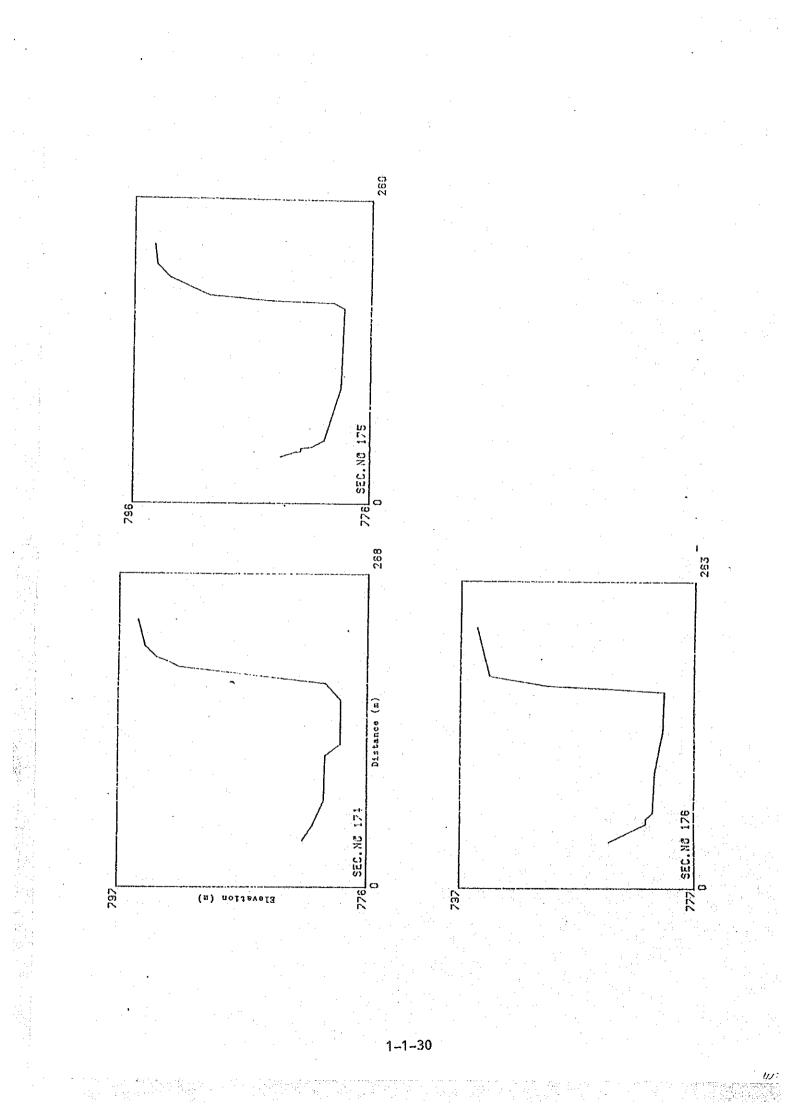


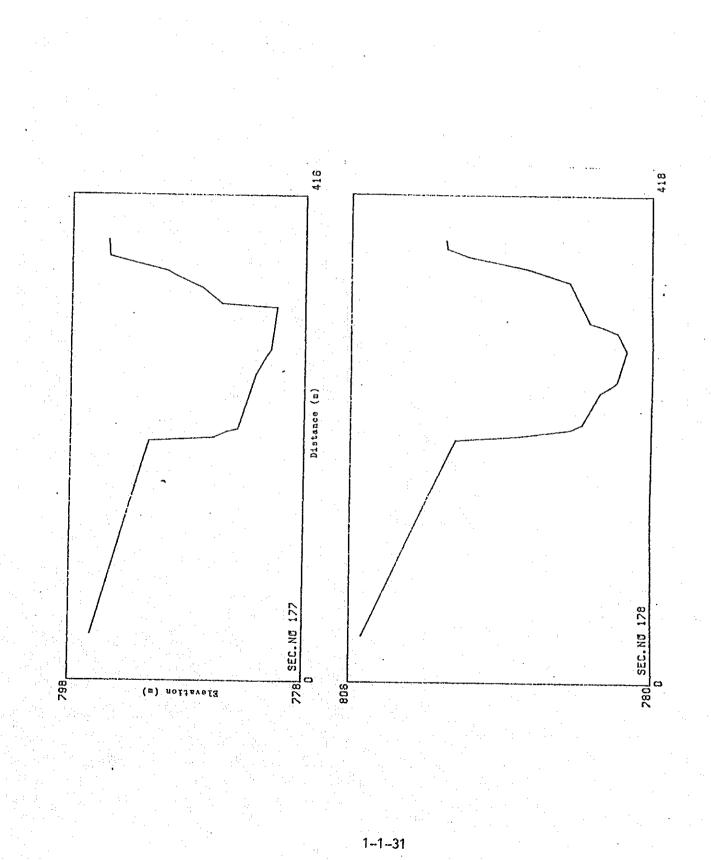


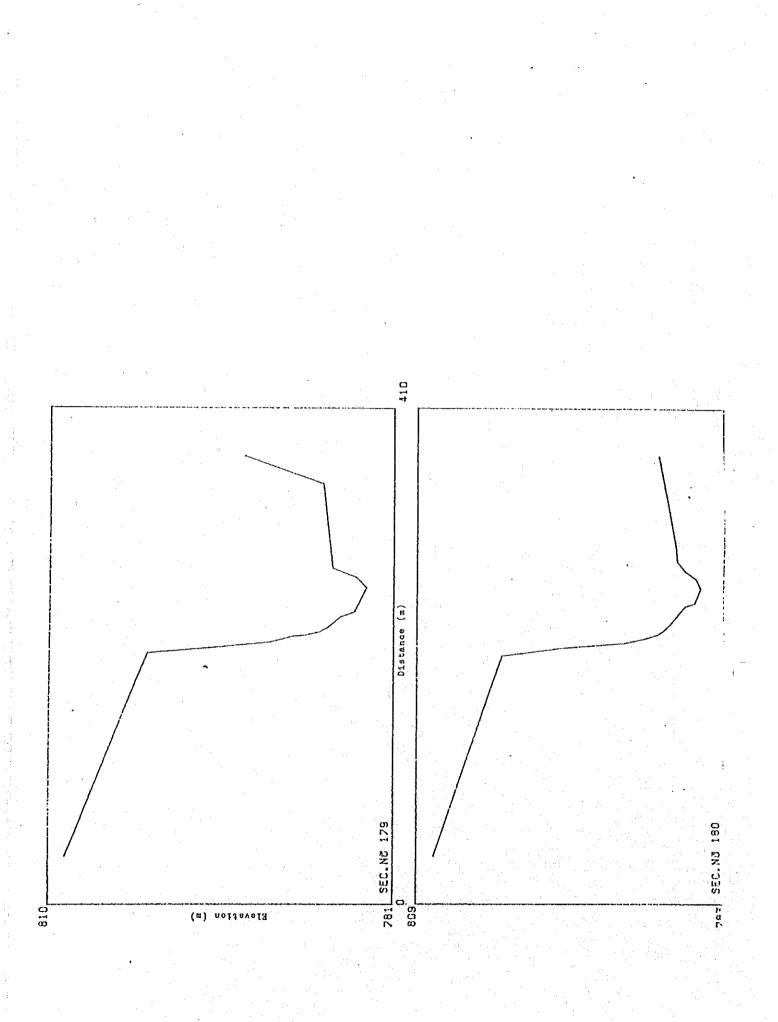


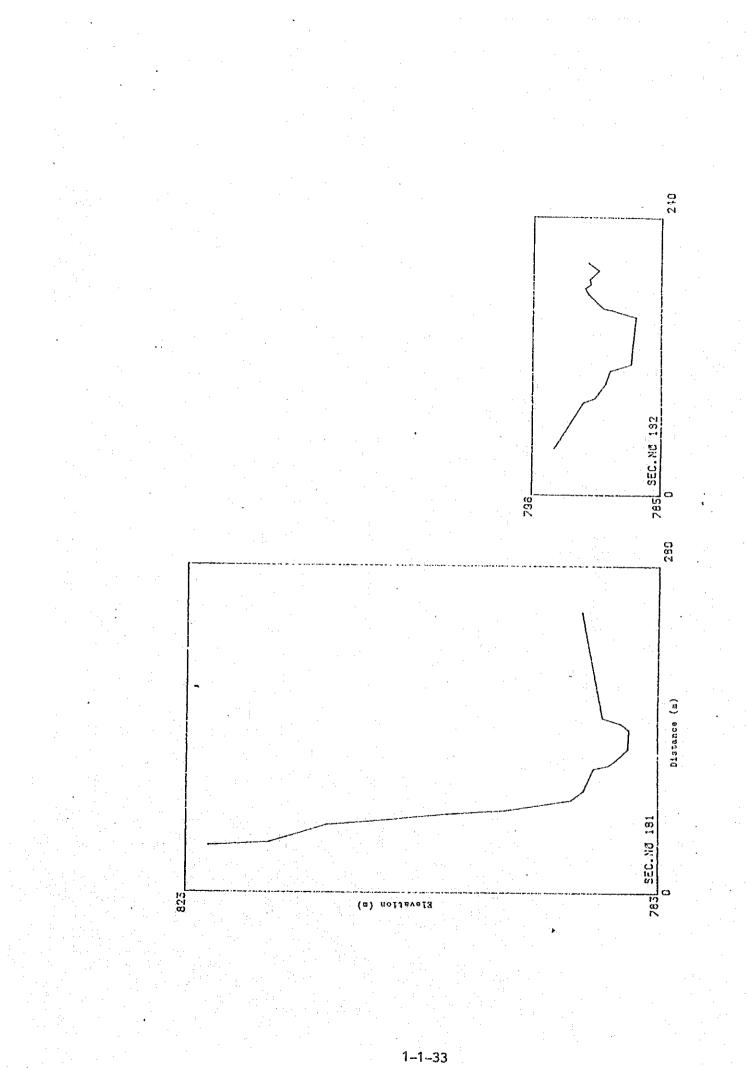
ШI Marina di Antonio Anto



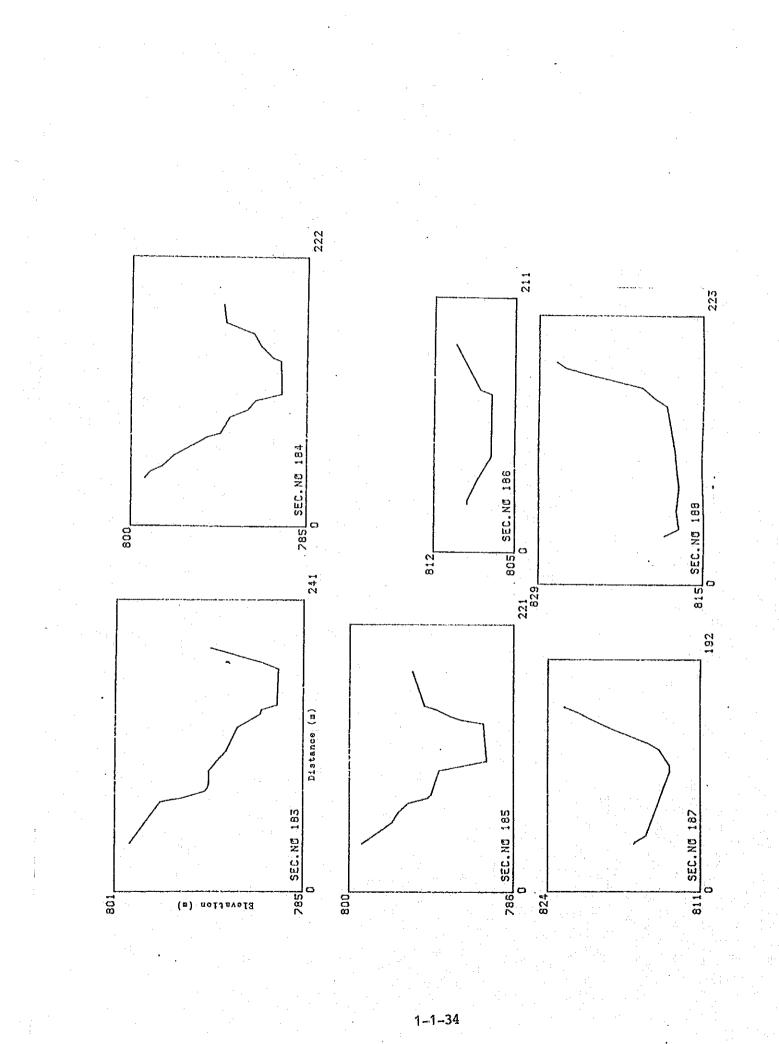








· ·



Distance (m)

817 SEC.NG 189

832

(≊)

RIevation

835,

S141

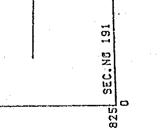
SEC.NO 190

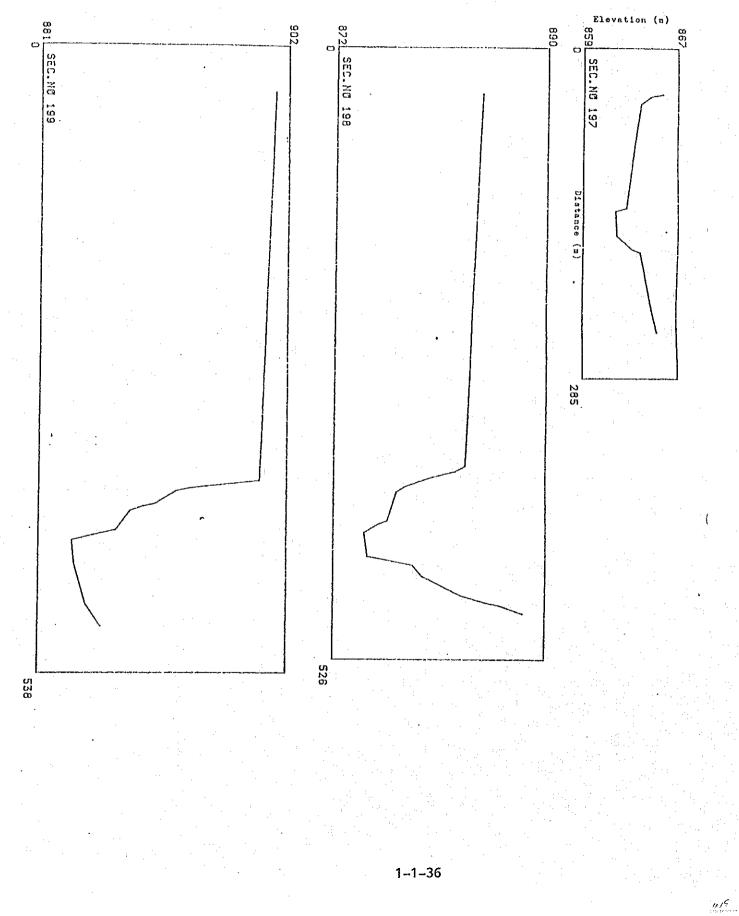
Ċ 822L

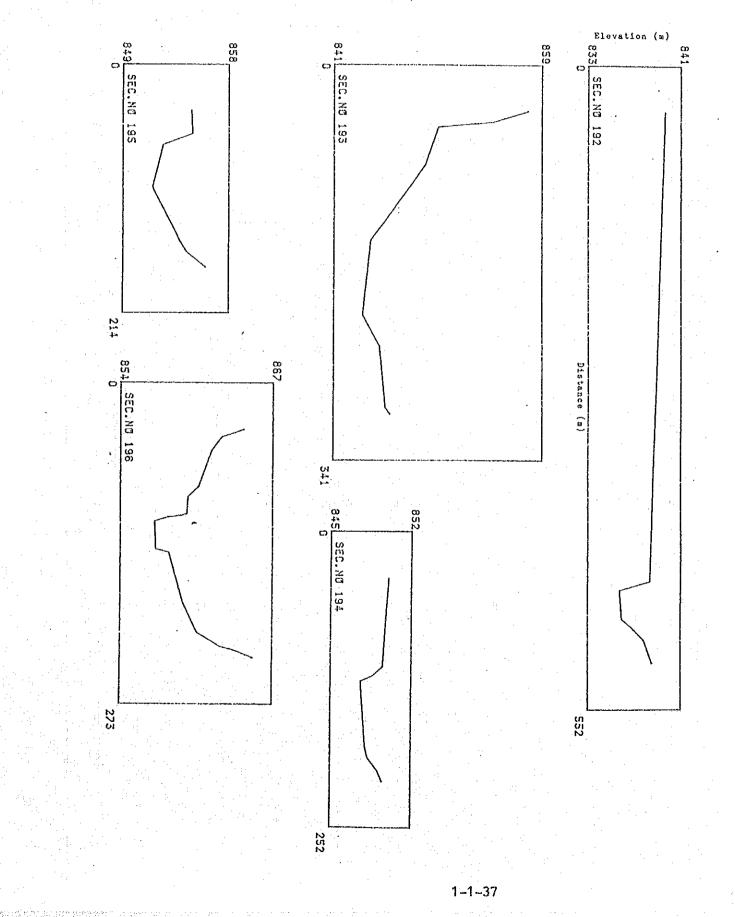
836,

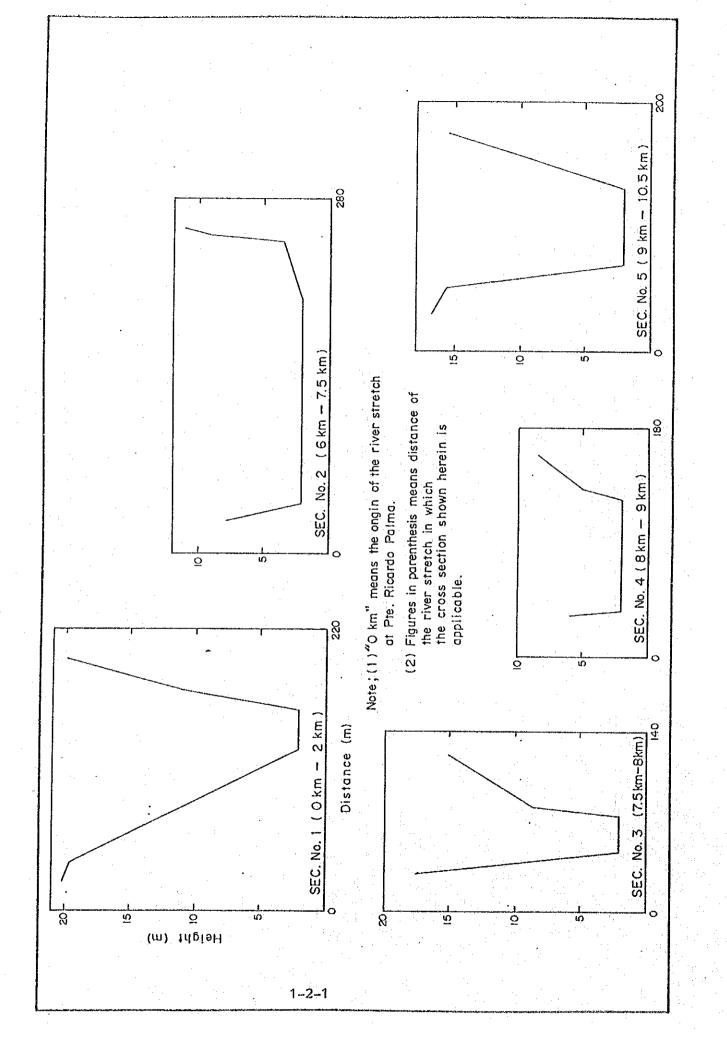
1-1-35

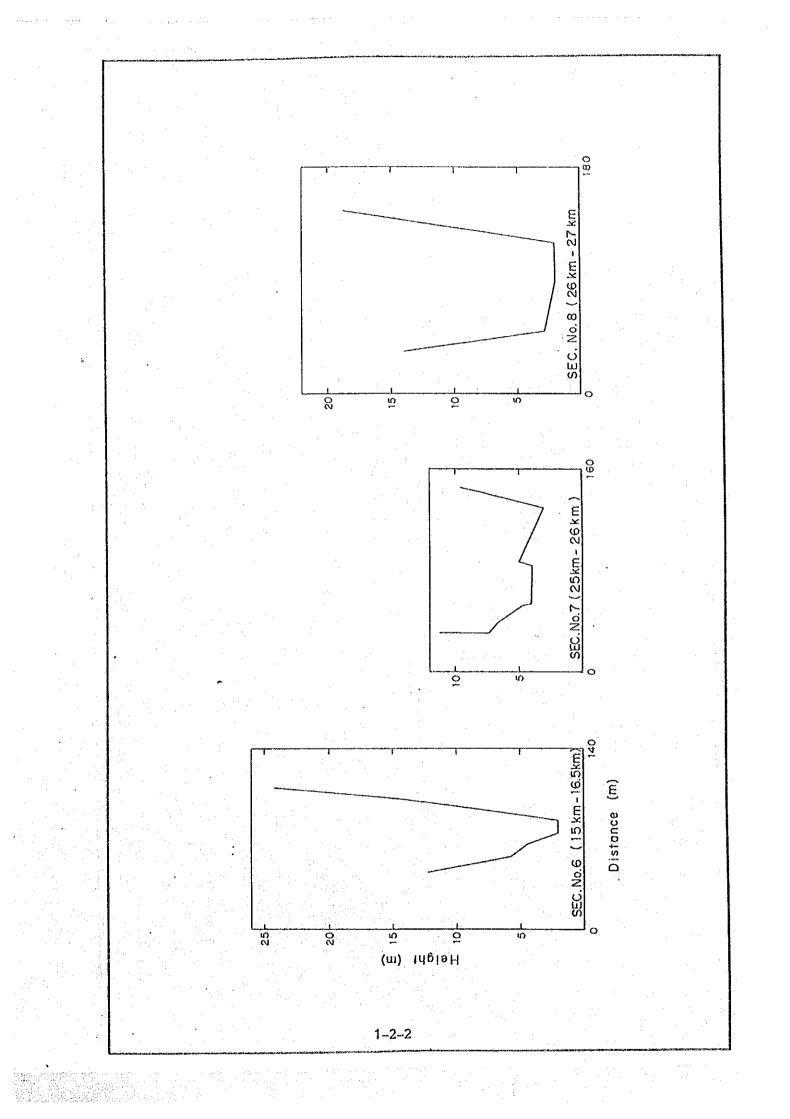


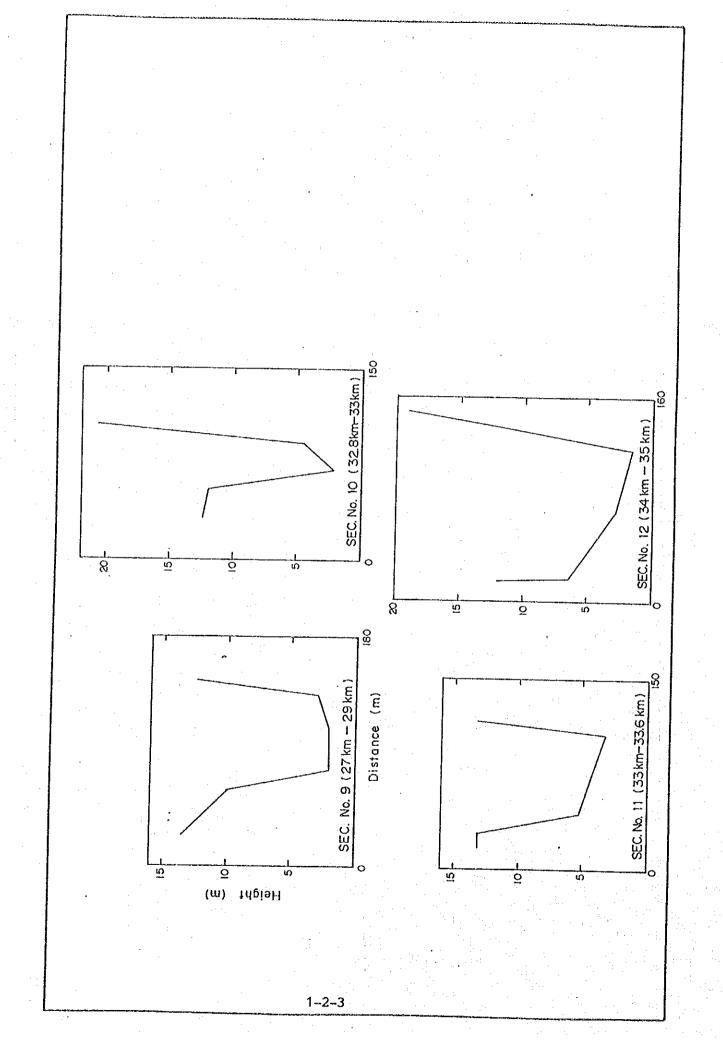




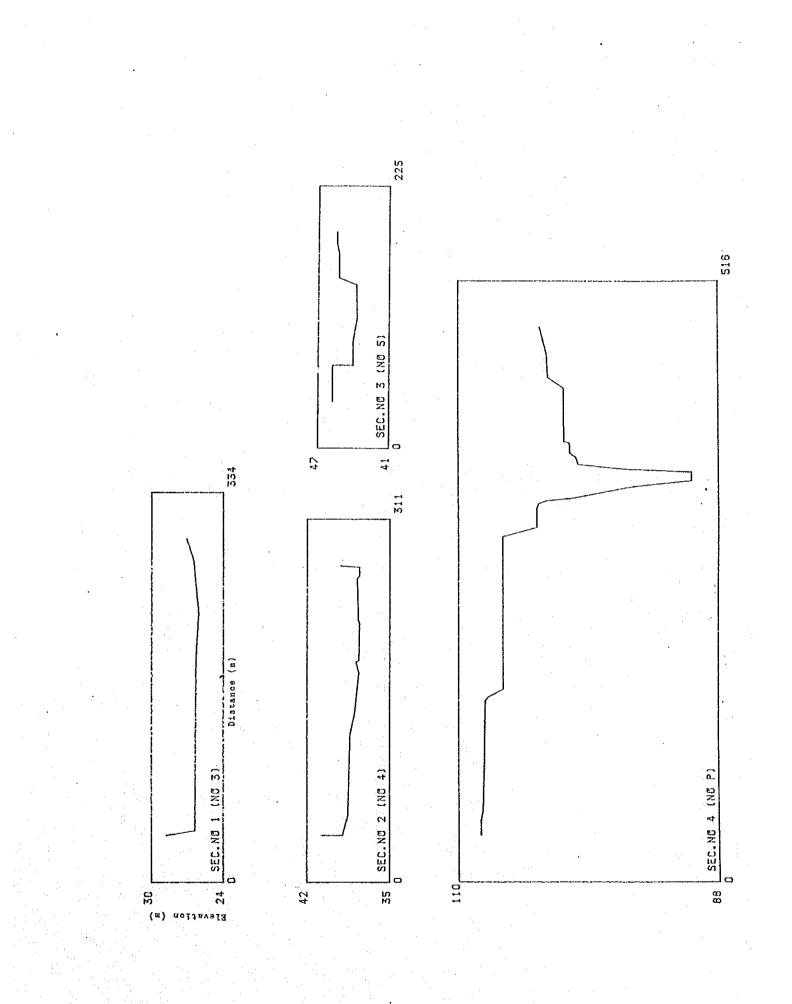




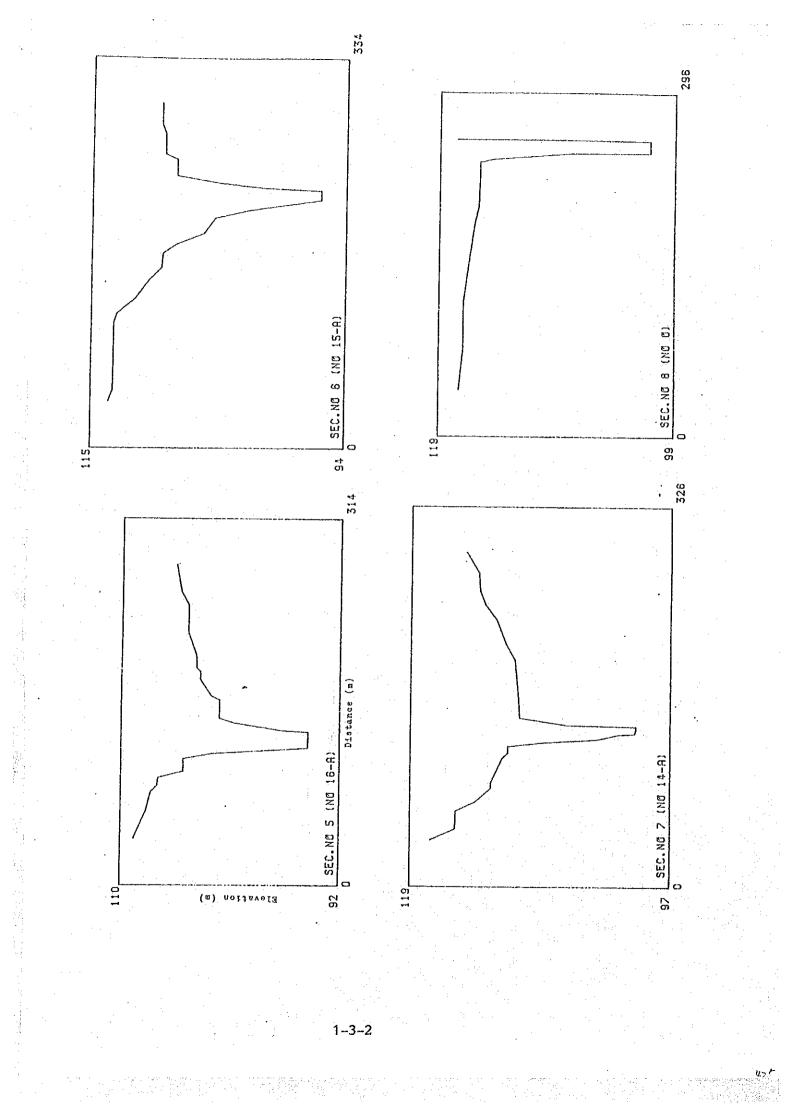


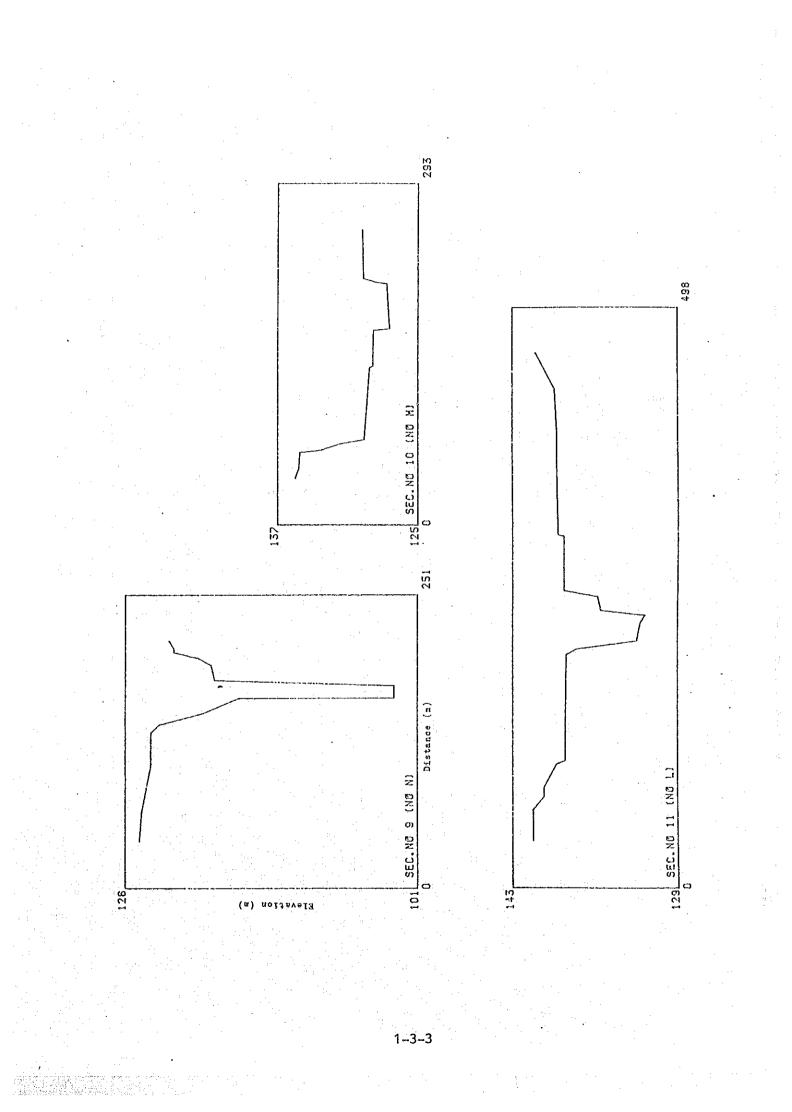


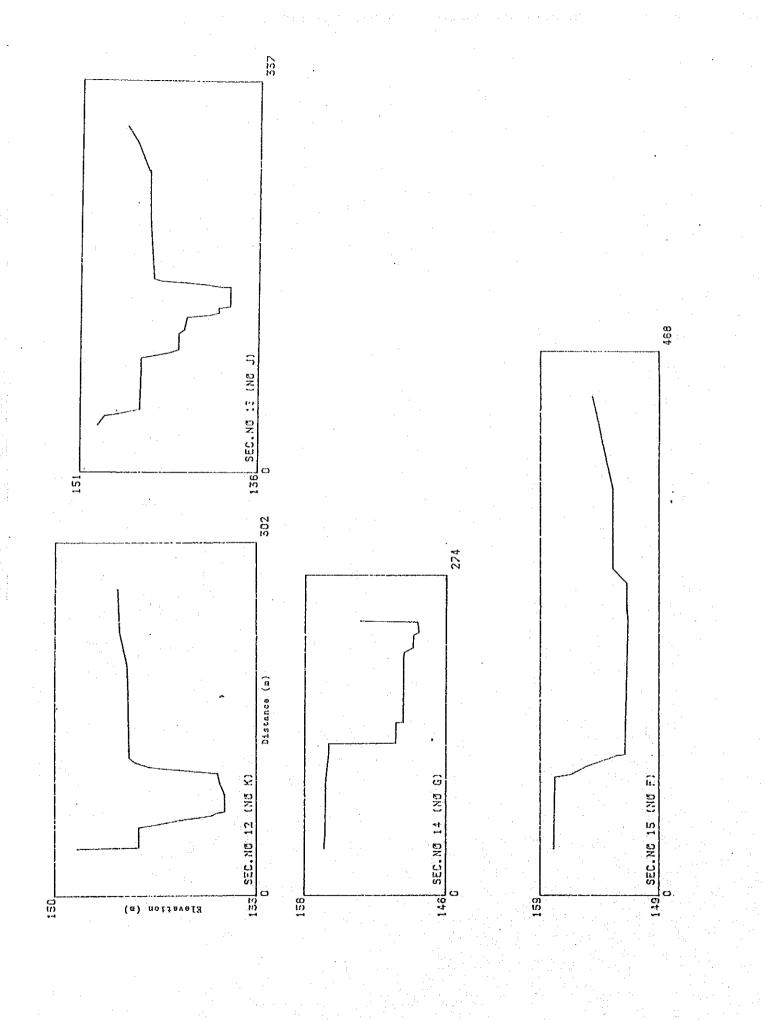
*4.*3;



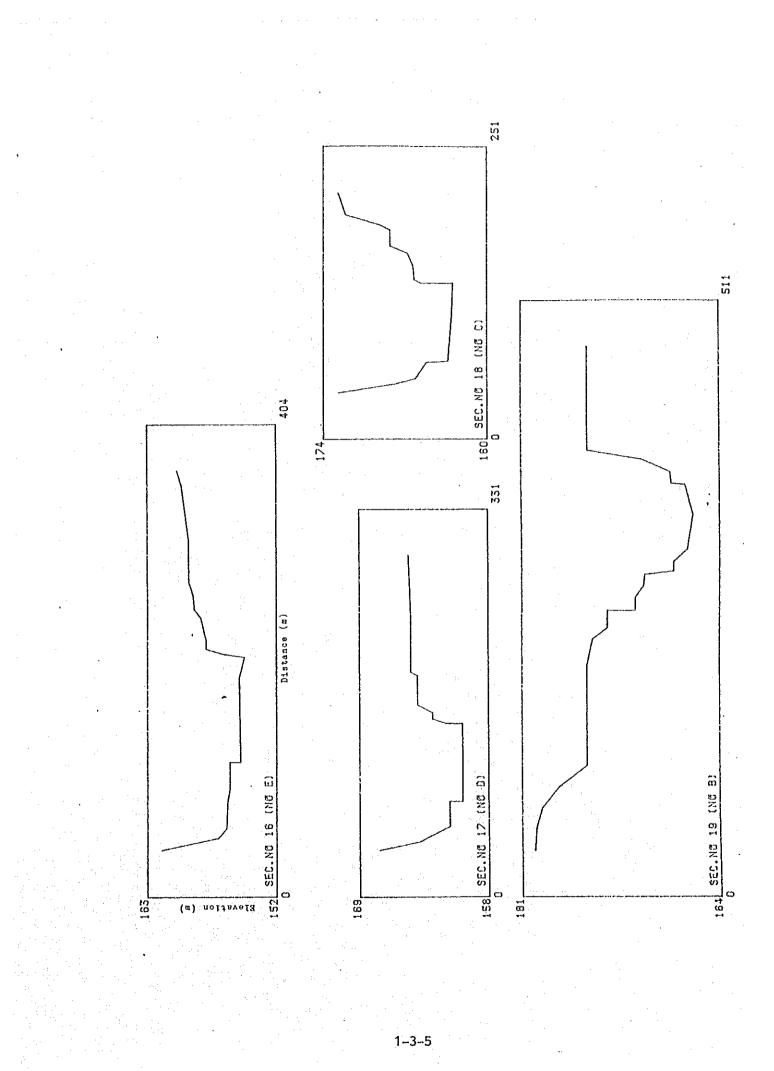
1-3-1



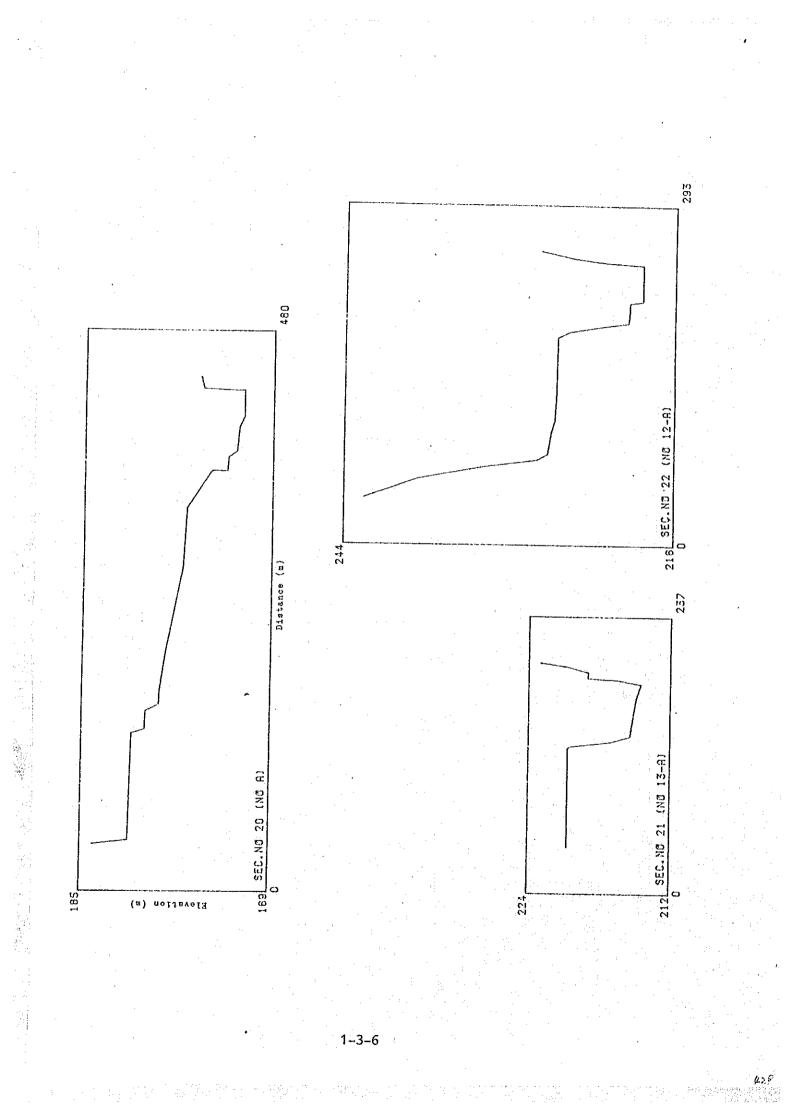


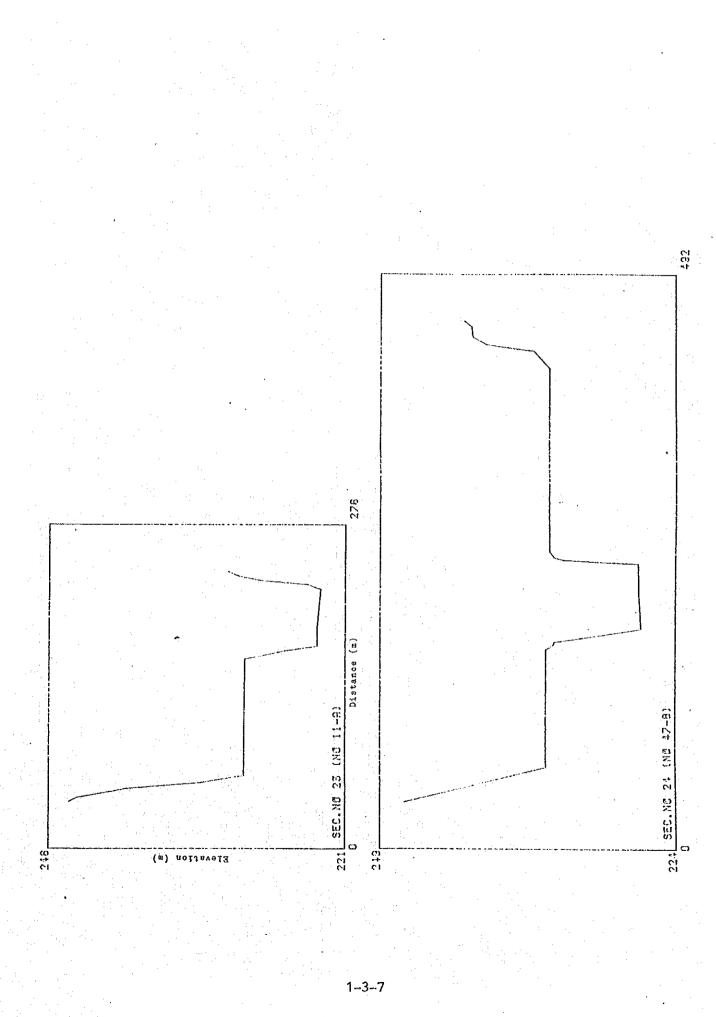


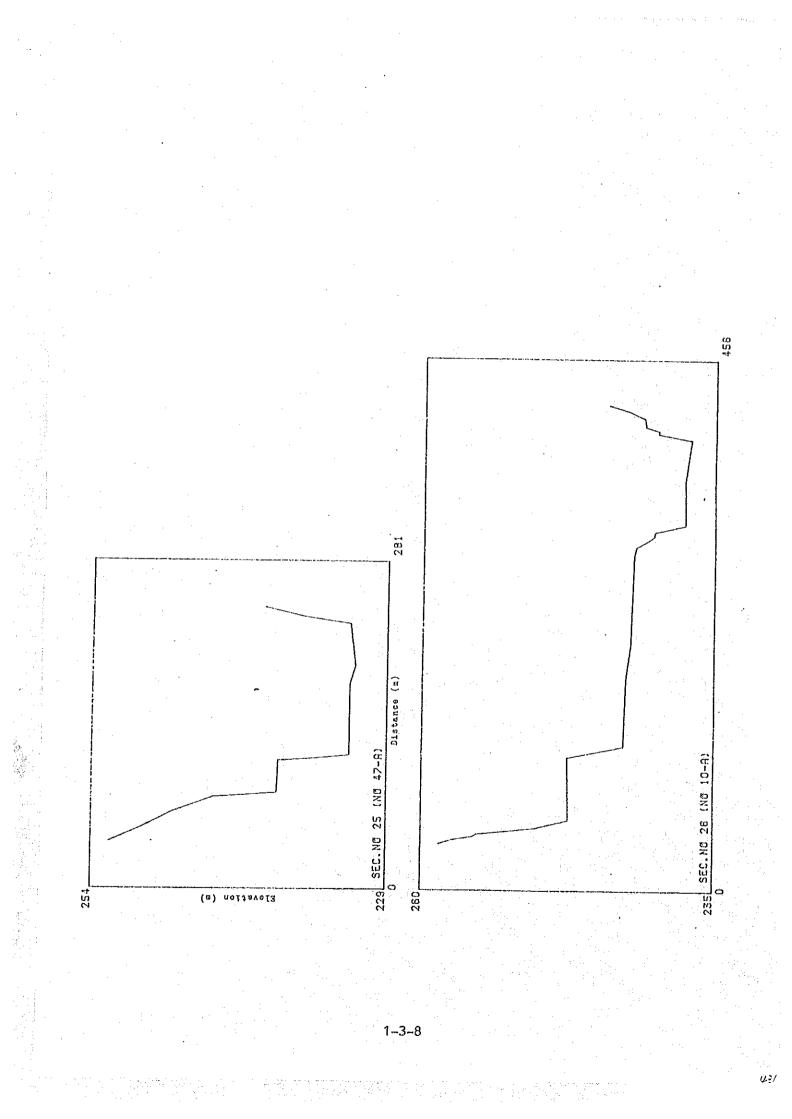
1-3-4

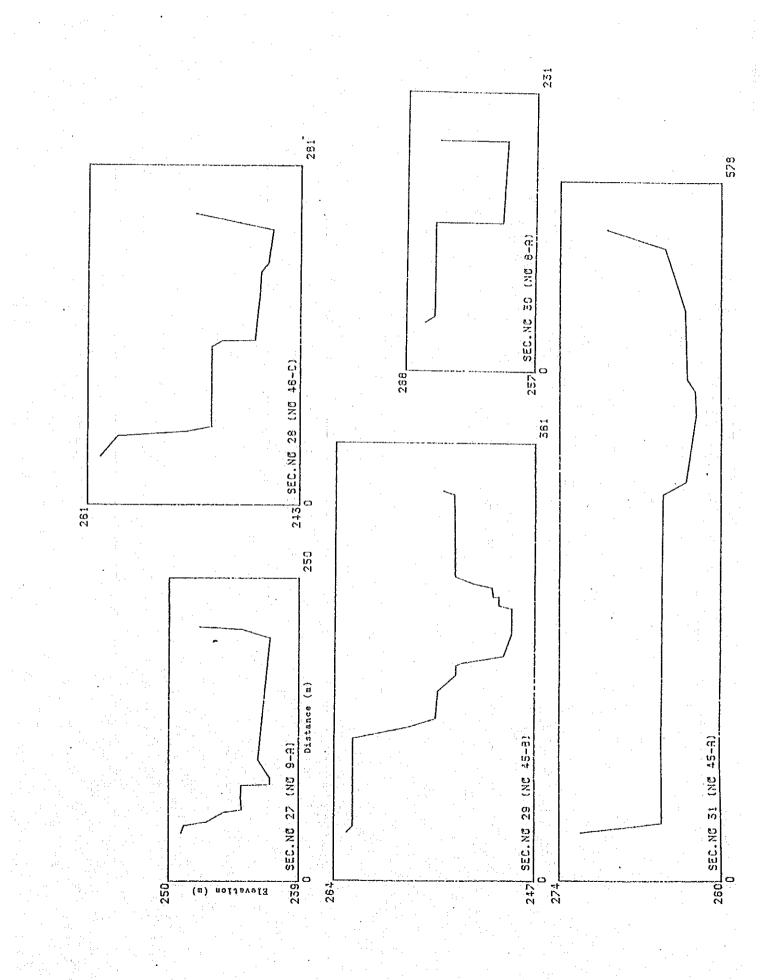


5 ⁹

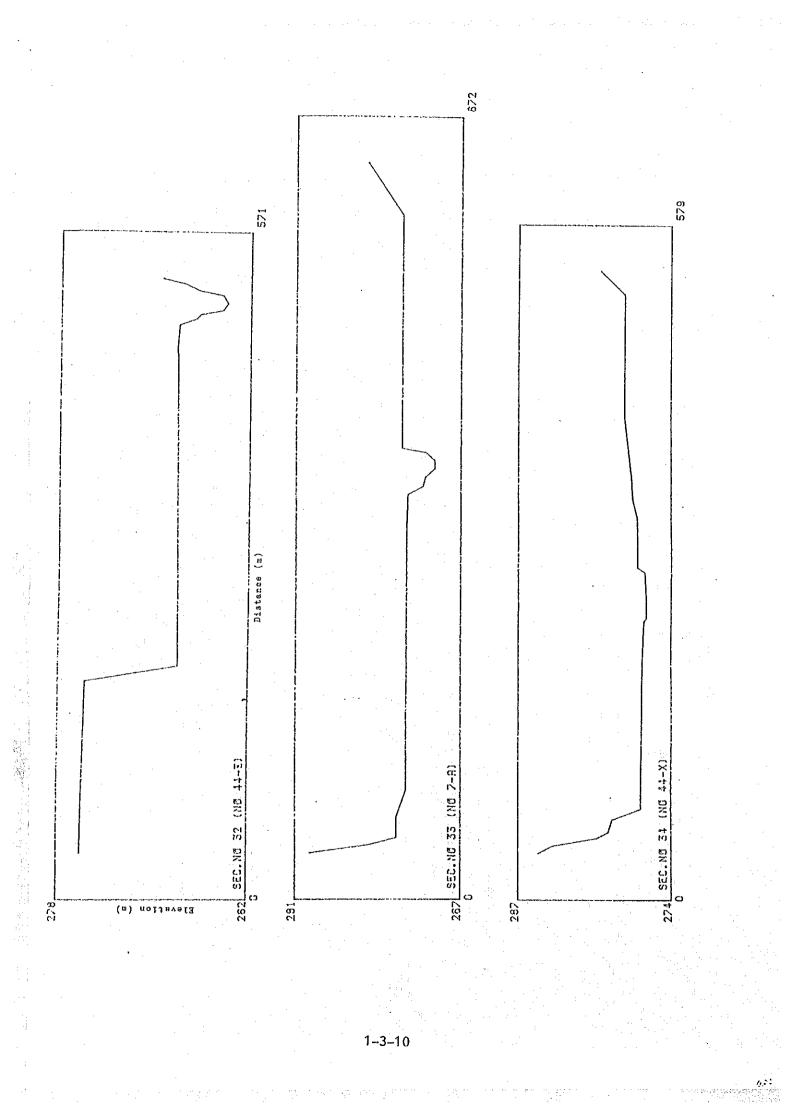


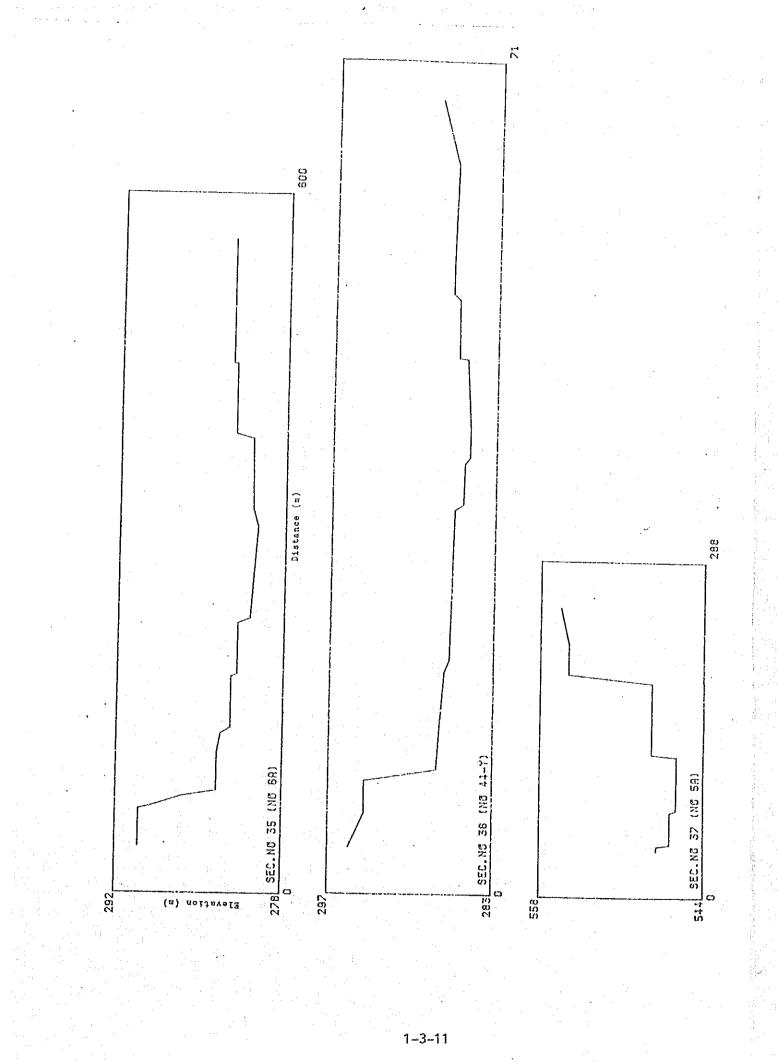


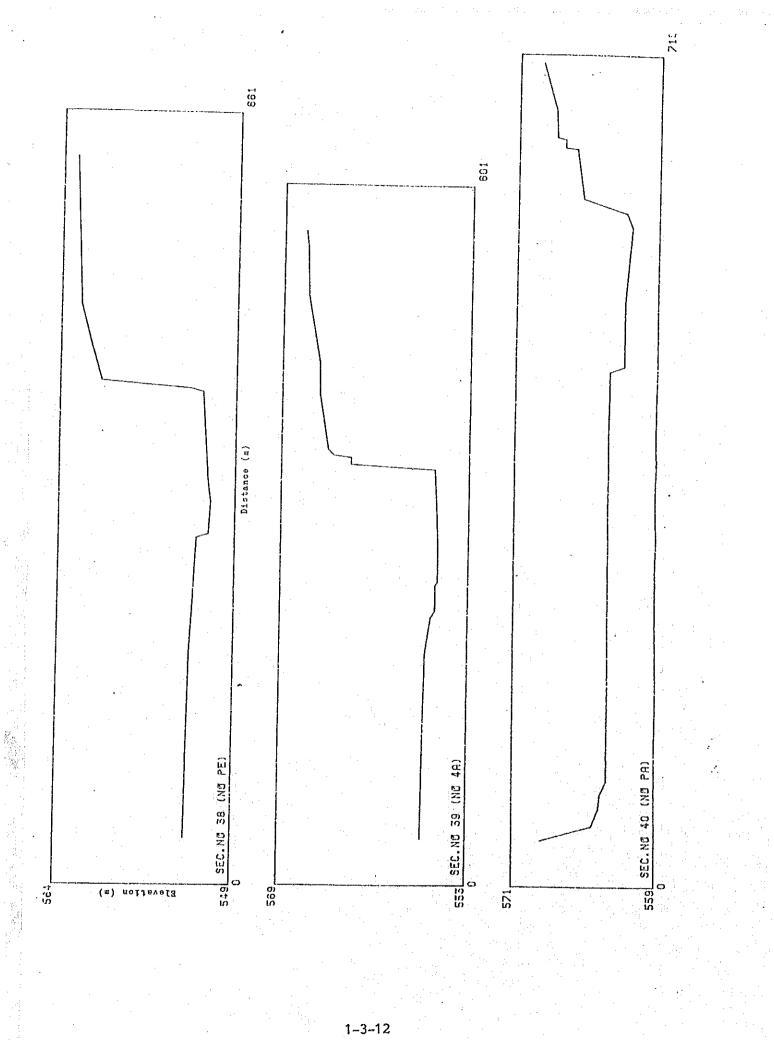




1-3-9

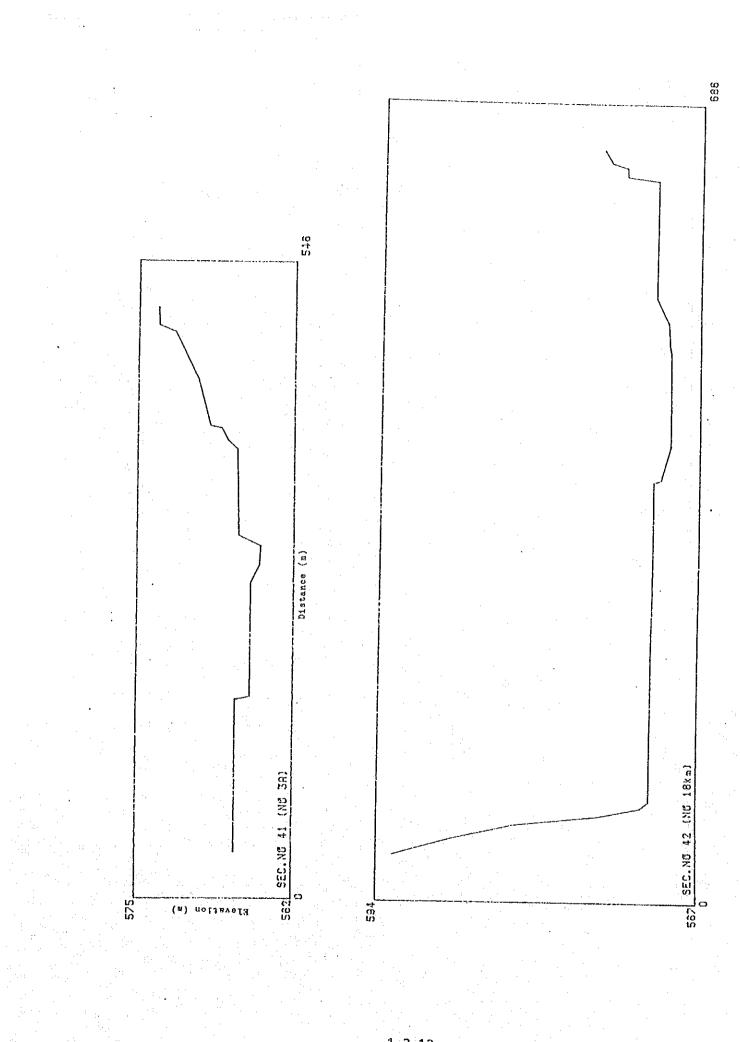


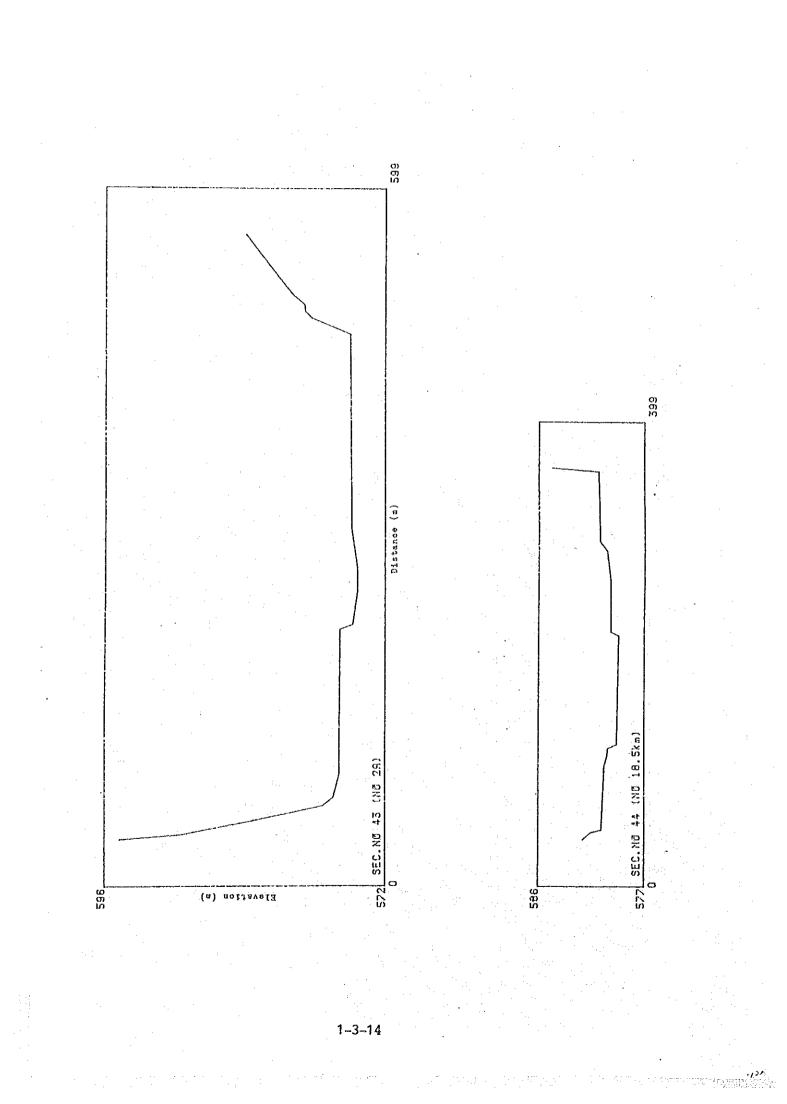


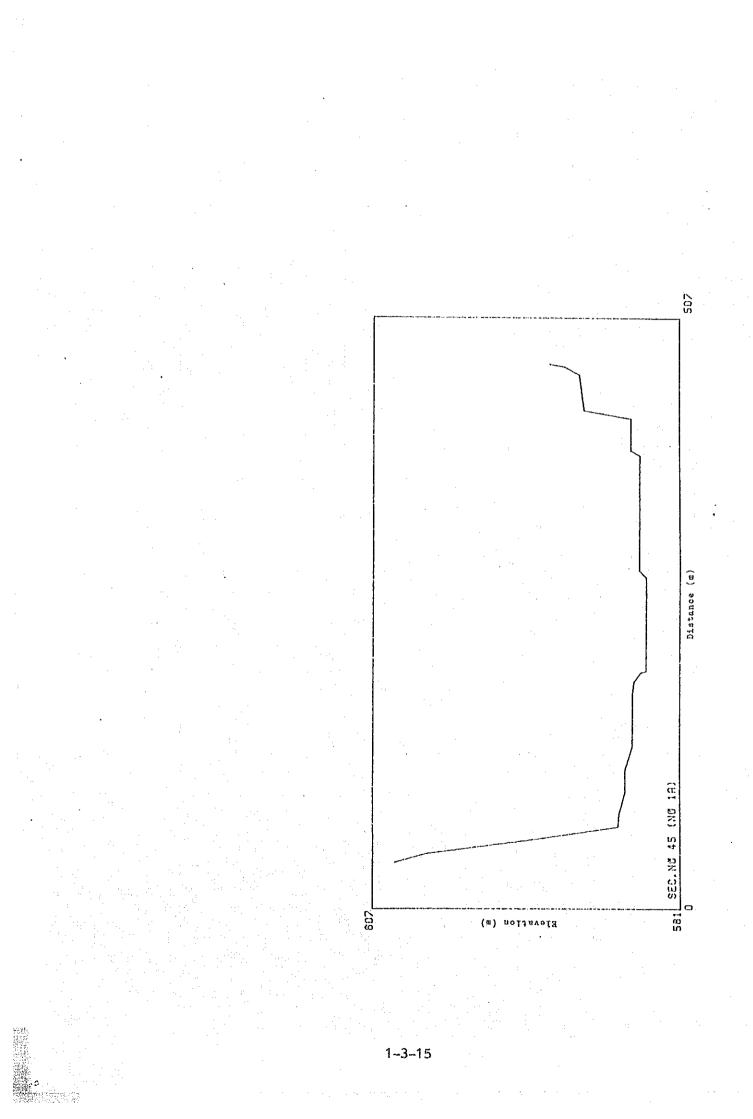


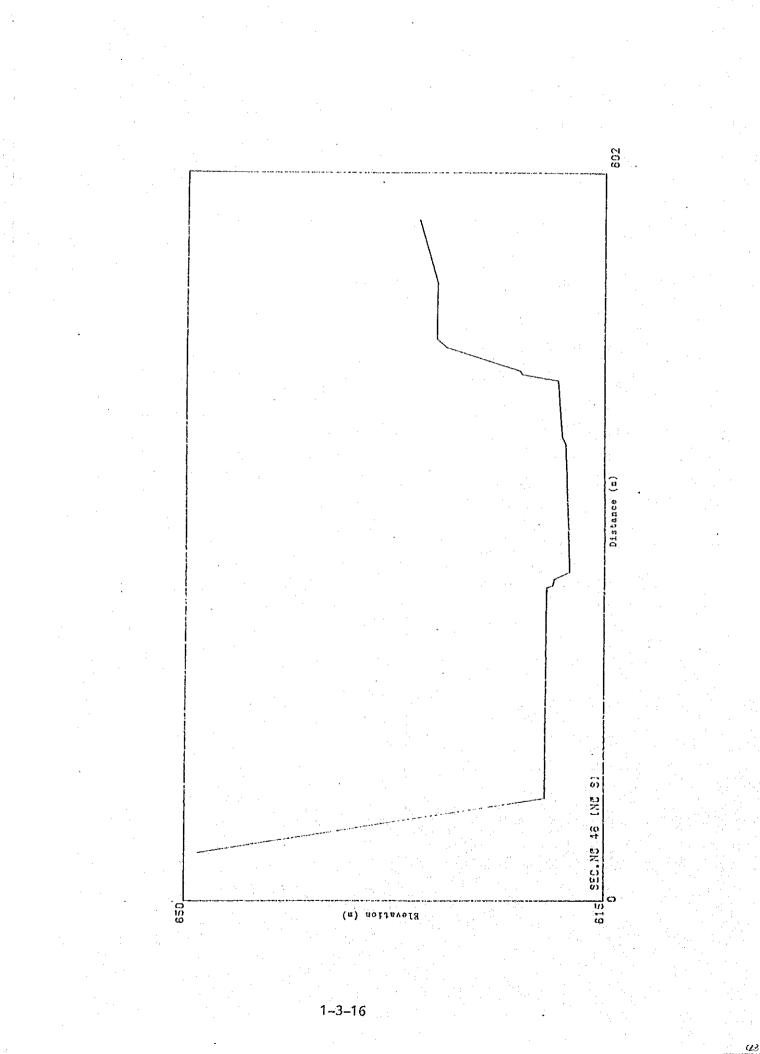
1~J~12

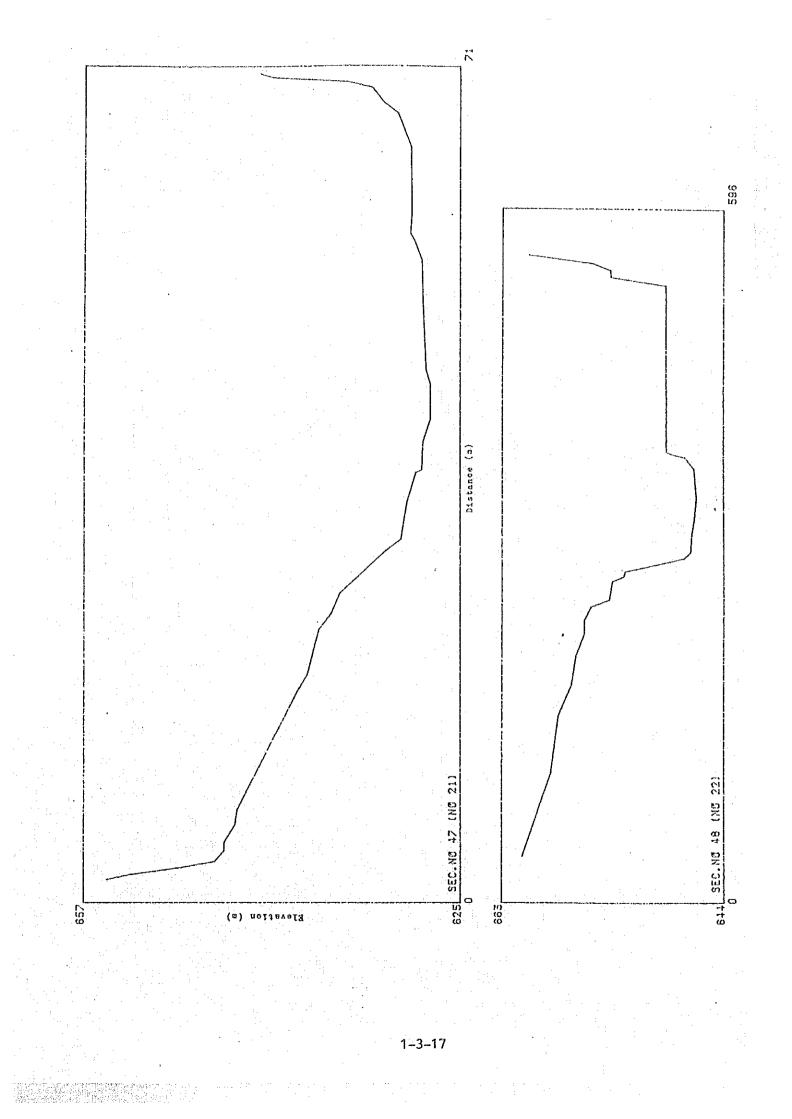
Zel ^{di} lek worde kwo













n an Pradit Ta State

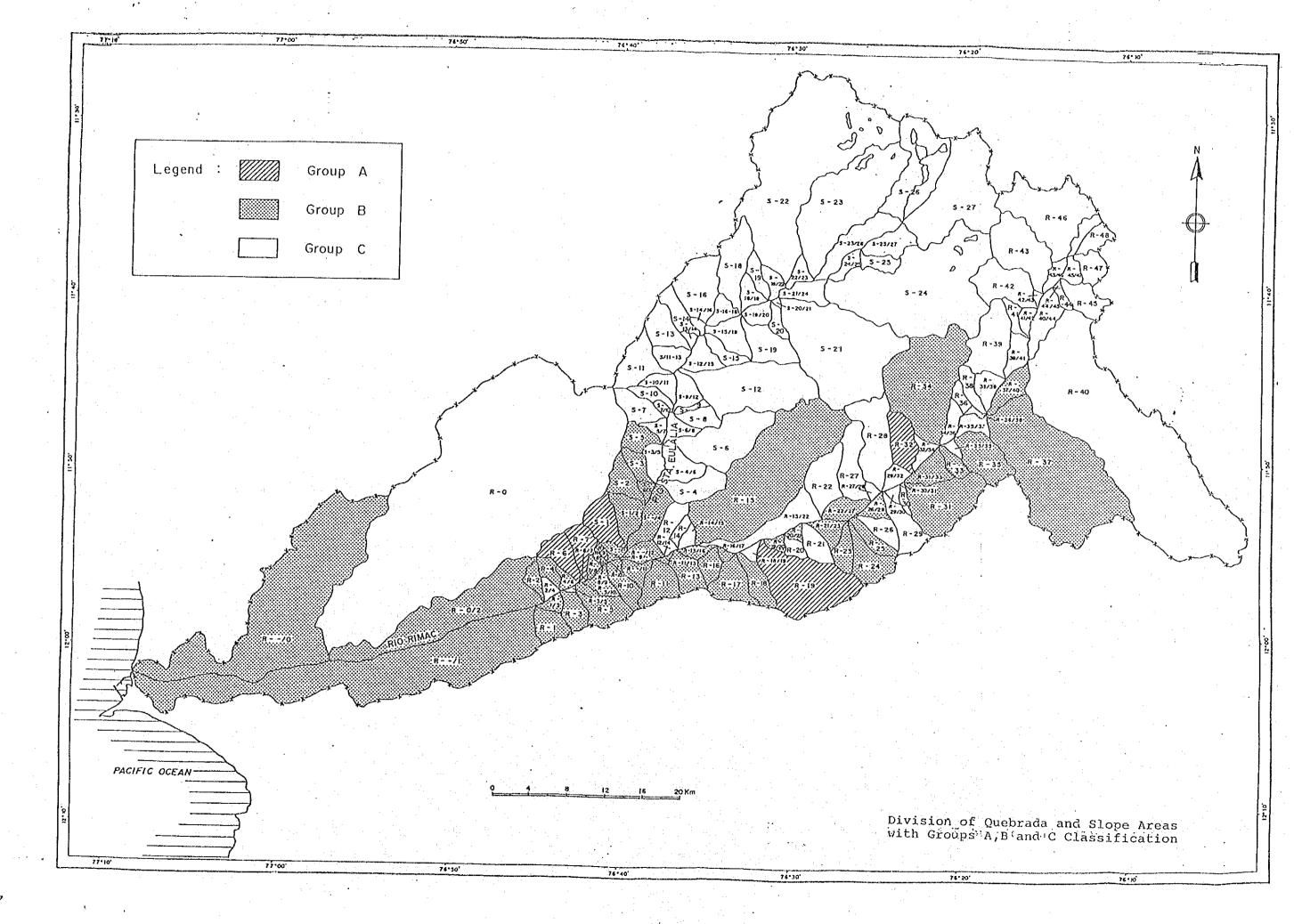
	Geolog	ical	Мар	of	Areas	in
				· · ·		
•	Groups	"A"	and	"B	n i servisis	
					- - -	1

III

List of Geological Map of Areas in Group "A" or "B" (1/25,000 in scale)

R-1 and R-3 1. R-1/3 R-2, R-4 and R-6 2. R-4/6 and R-6/7 3. R-5 and R-10 R-5/10, R-10/- and R-*/11 R-7 4. R-8 and R-4 5. R-7/8, R-8/9, R-9/- and S-"/1 6. R-11 and R-13 R-11/13 R-15* 7. 8. R-16 R-13/16 9. R-17 R-16/17 10. R-18 11. R-19* 12: R-19/20 13. R-20/21 and R-21/23 14. R-22/27 15. R-23 16. R-24 and R-25 17. R-26/29 18. R-31 19. R-31/33 20. R-32 21. R-33 and R-35 22. R-34* 23. R-37* 24. R-37/40 25. S-1 and S-2 S-1/2 and S-2/3 26. S- 74 and R- 712 27. S-s and S-5

Note: (1) Areas of R-0/1, R- $^{-}/1$ and R-0/2 are not attached. (2) * Only a downstream area is shown.



*	age S		2 7 6	3 16.9	6 15.6	2 13.4	0 77 0	3.2	9 14.3	3 37.2	4 35.7	1 13.7	3 16.7	1 17.9	01-0	3 19.4	7 20.6	3 23.4	14.3		27.5	29.8	7-1-7	30.5	19.2	19.8	36.7	18.4			19-1	6.5	31.8	ດ ຕິ ຕິ	19.7	0 0 0 0	23.8	12.7	0. 1. 1.	10.3	
0 *	Aver	ູ ສີ			ຕັ	- T-	• •	1	'n		न र		۳ı.	e	- 10	5	2	2.7	с. М		1.9		0 - 1 - 0	1.7	5.0	5.8	1.3	0 4 0 6	1.8	4.0	2-9	8	- 1-6 	15.2	2.8	9 6 0 F	2.3	7.7	ຕູ ເ ເວັດ ເ	1.01	(o)
	Height	of River	3 970	1,185	1,090	222	1.410	1,215	1,480	835	1,320	1,270	800	1 450	3.620	1,370	1,880	2,255	3,110 2,000	2,820	020	2,520	- 2,570 S	2,470	2,780	2,480	1,940	2,660	2,230	2,790	2,202	2,360	2,050	2,200	285	392.1 1.302	970	1,150	076	620	: *4/*9 : Degree
	evation (m)	Lovest	260	690	20,5	755	8	805	820	9 5 8 6	068	1,030	1,150		1,230	1,280	1,320	1.350	1,550	1,650	1,780	1,920	2,010	2,030	2,10 2,10	2,200	2,320	2,400	2,490	2,510	2,850	2,950	200	3,450	52 82 82	285 085	4,050	4,150	4,280	4 380	* *10 * *
MAJOR TRII	Eleva	Highest	4,230	1,875		1,650	2,210	2,010	2,330	2,000	2,210	2,38	2,950 5,050	2,650	4,850	2,650	3,28 1,28	2,00,2 2,62,4	3,750	4,470	88.4	4, 630	4,580	4,500	000, 4	4,680	4,260	4, 760	4, 720	2,300 2,100	4,750	5,310	5 250	5,650	5,250	5,280	5,020	82	5:200	5 000	ke section catchment area
FEATURE OF	ł) (四)	0 489.3		- 7 - 8 - 8	· .	••••		-			2. 13. 5) 118.0	9 9 9					19 4	14.8	6.6	7 5	79 J	14.8	1.1		÷			130.6			4°9 73 4		5	1.9	.	12.6	river-like line of cat
NCIPAL	er Length) B (m)	ŝ	÷. N											2	~ !	~ 1	1		ירי	њ С	רי		Λ.O	1	യ (mo	e i	4	<u>າ</u> ແ) ហ៊	21 500 51 500	<u>י</u> ס ו	ທີ່	ດັໝ	ទ	ก้	ດັດ		4,600	end of border
D	River ce	(ш) Y		· .		, so	8	20 20 20	201.1 201.1	1,60	8 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	38 28	200	2,500	21,200	ອ ຄຳ 8										8 9 8	200	6,100	7,10	207 11	2,600	20,600	8,500	33,500	88	9,50	8 8 7 7 7 8		2,600	3,400	*4 : To the *5 : To the
Table *3	Distance	Î	20.5	44.5	14	17	2.02		(A) 53.4	1)(A) 54.0	3	69	62.7	62.7	64°8	0/ 4 60 3	4 69	72.9	75.1	8.00	83.0	83.3	83.9	198 198	87.9	88	06°5	A) 92.0	92,6	98.1	101.0	104.1	108.8	111.8	118.5	120.0	10121	124.5	125.6	125.6	
	lbutaries		á	(B)	(a)	3(8)	(B)	San Antonic	(oy.opampa)	Reyus de Sc	8	2	(a	1	a a a	5	B)					ł	(9)				д) Э	ahualla) ((B)	•			•		•				• .		outh
; ;	of tr		Jicamarca Theracaro	Checresana	Carlfornia	Santa Maris		edregal (S	arosio ()	ales (, apros a	an Juan	upiche c	loquepampa	VanchacaLL	gua Salada	el Pate (io Seco (A	speranza	LILUXES Inday	uacre (B)	atata (B)	ucnimachay haramara	າມອຸງບາຍ	elcacancha	arranco Jeumo	ucumayo (ihua (Llar	bacanuaro (uncha (a)	so (B)	atara	sllumay	rumanya	anco la	nta Rosa	cpin trivino	Then	Inchan	rina	caranra .	om river m
				÷							÷.,	Ţ.					0	0	<u>с</u> с	,0	r o	00	хÒ	0	aç	20	0	α_{c}	20	Q	σç	γĠ	ф,	20	O (ာင	\dot{o}	o	ở	5	*3 : Fron
	No		(R-1)		, ;		1 ÷ .	,e	e:	÷	1	ť	•••		- -	.କୁ 'କୁ	(<u></u> .	÷.						(H-1)		С-Ч КЯ)	(R-3			(R-3		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	<u></u>		-4- 1-4-	j Ž	i i	(R-4(73 205	Ť	Remarks :

	-		•					. 1		•
* :	2 *	ຕາ *	*4 River]	*5 Length	9 *	*7 *1evetion	* 8 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	*9 *0,01	0 *	11* 5
No.	Name of tributaries	Distance (Mm)		B B B	Агеа (1412)	Hihest	Lovest	Difference of River (m)	Average	edote
Qda. (S-1)	0. Cashahuarra (A)	57.1		200					:	•
	~			200	1.1	2,600	980	1,620	ດ. ເ	17.3
(S-3)	뉟	65.0	3,200		1 - 4 7 - 4	5, 22U		2,030	0 r m -	18.7
() () () ()		65.1		000.6	16.4	3.820	1.320	2 500	 	D
() () () () () () () () () () () () () (69.4	3,900	5,000	40.3	3,520	1.570	1.950	1 C	26. 5
ရ) ())		69.6	11,700	14,800	9.5	4,765	1,570	3,195	10	15.9
		72.4	4 000	6,900	12.9	4,230	1,680	2,550	1.6	32.5
		2	4,000	5,900	8	4,000	1,790	2,210		28.9
	C. Heged	22		000.0	ດ ທີ່ເ	3,920	1,800	2,120	1.4	36.2
(S-11)		0,1,0		0,200 0,200	1	4,030	88	2,230	2.2	24.9
(5-12)	Rio Carhuayuma	100		16, 500	4 1 0	4, 23U	0/6 r	2,260	6' ' 6' '	19.2
(S-13)	Q. del Zorrillo	6 62	5 200		7	4,000	2,020	7,810	່. ດີເ ດີເ	101
(S-14)		81.4	000	6,600		4,470	2.300	2,170	n a	27 0 10 10
		82.1	5,100	5,900	6.8	4,820	2,330	2,490	2.0	26.0
(01-2)		83	7,600	8,100	25.3	4,750	2,420	2,330	ິ. ຕ	17.0
	V. CDALIAMAYILO	87.0	7,300	8,900	17.9	4,750	2,560	2,090	3.5	16.0
	V. 1020 0 Himmoscoch	2 2 2	9 , 700	10,900	22.8	4,910	2,700	2,210	4.4	12.8
	1.1.1	2.6	4,800	00,00	۰. م	4,750	2,950	1,800	2.7	20.6
(S-21)		0 0 0 0 0 0			-	4,/10 5 025	2,970	1,740	ი. ქ	27.8
(S-22)		93.1	19,000	259.000	178.5	260	3,120		ກັນ ກັດ	11 0 4
(S-23)	Q. Collque	96.3	19,000	19,600	78.5	5,100	3,330	1 770	10.7	- e - u
(47-5) (47-5)	Kio Shuncha	97.5	18,800		137.8	5,300	3,460	1 840	10.2	
	V. Ianac	102.7	4 000		6.1	5,500	3,840	1,660	2.4	22.5
(S-27) (S-27)	V. nuasca Río Pallca	108.1	11 200 6 060	12,900	C 75	5,120	4 100 7 100	1,020	0-11	2.5
•			000.0	002 1 11	0 +0	, 200		007°T		0*77
Remarks : *	*3 : From river mouth	4 * * *	: To the	end of	river-like section	section	01**	6*/** :		
			TO CUG	ITT Japiog	IC OI CREC	shaent area		l : Degree (o)		

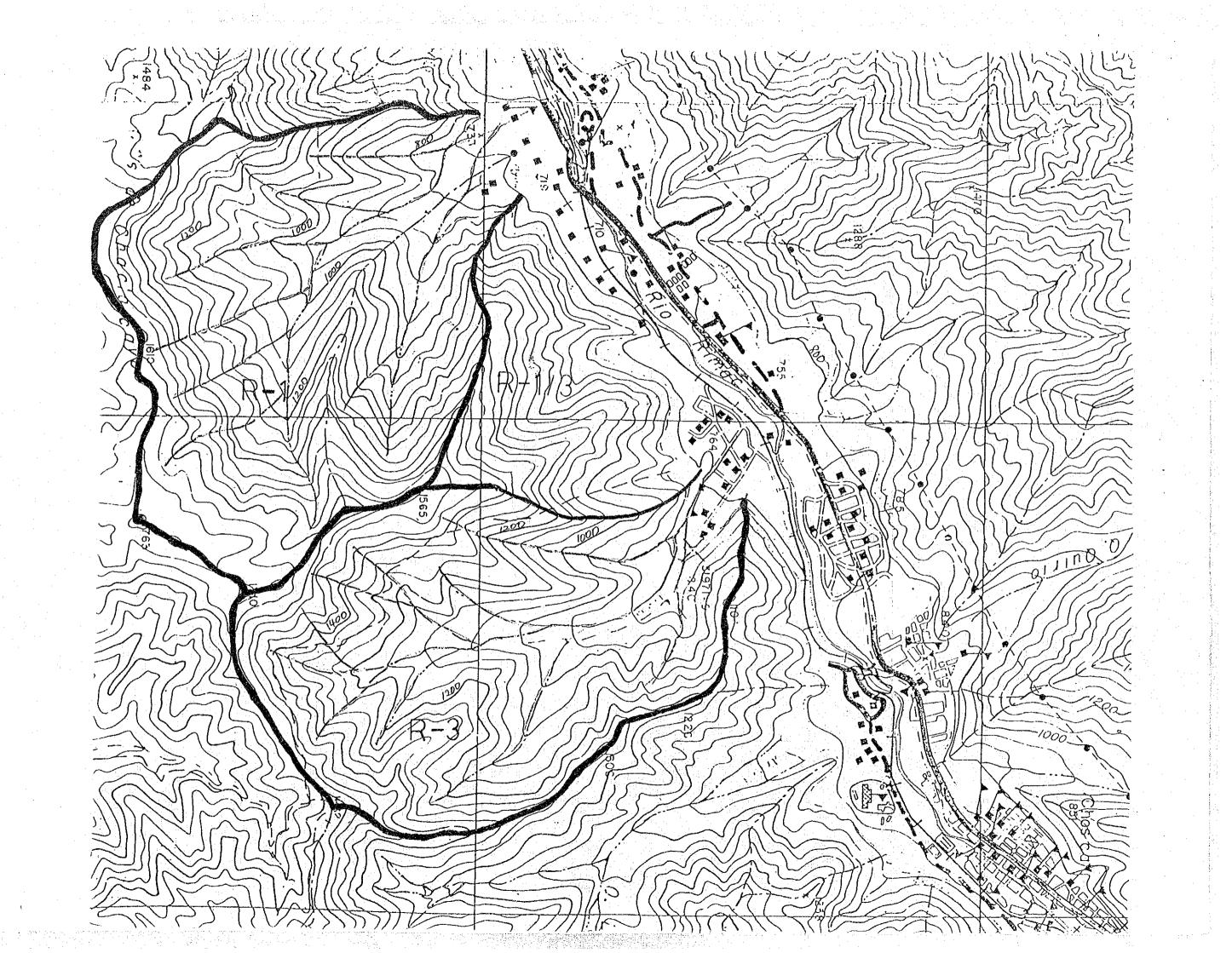
PRINCIPAL FEATURE OF MAJOR TRIBUTARY AREAS (2/2)

Table

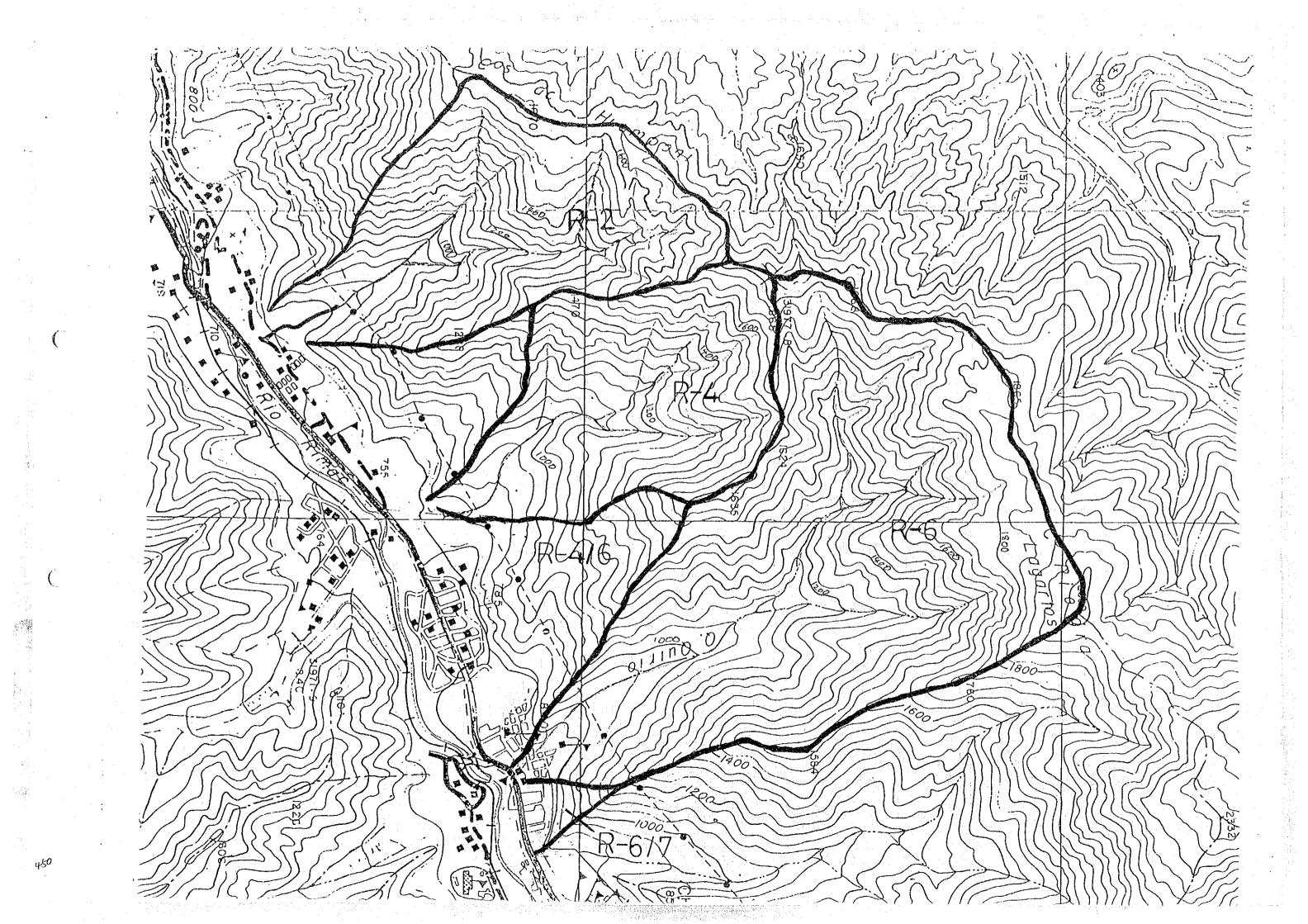
*11 Slope B	200.666333332.5666667276887657675886655565588655565555555555
*10 Average A	111 000040744840708040880707040000400040007088000807
*9 ***********************************	720 720 720 720 720 720 720 720 720 720
*8 *8 Lovest	11182288888888888888888888888888888888
 *7 *8 Slope Elevation Righest Love 	**************************************
*6 * *	888 8980 8.900 1.1000 1.1000 1.1000 1.1000 1.1000 1.1000 1.1000 1.1000 1.1000
*S Slope Length (w)	1 1
*4. Section Length (m)	
*3 Distance (Am)	e Biddle Basson of the second
Slope	<pre>Jicamarca (B) 10.4 20,800 - Chacrasana (B) 33.5 25,300 - Chacrasana (B) 33.5 25,300 - Carfornia (B) 33.5 25,300 - Pedregal (B) 52.7 1,100 - Pedregal (B) 52.7 1,100 - Concluence (B) 52.3 3,500 - Concluence (B) 53.4 8,500 - Concluence (B) 57.3 3,600 - Luquepampa - Santa Ana (B) 77.4 - 15,200 - Naux Salada (B) 77.4 - 15,200 - Naux Salada (B) 68.3 1,500 - Naux Salada (B) 88.4 - 100 - Naux Salada (B) 88.5 1,000 - Pancha 69 88.6 3,500 - Naux Salada (B) 88.6 3,100 - Pancha 69 88.6 3,100 - Naux Salada (B) 88.6 3,100 -</pre>
	<pre>(river mouth) - Jic (river mouth) - Cha Chaerzeayo - Car Chaerzeaya - Car Chaerzeana - Car Chaerzeana - Car Carcoria - La Quirio - Car Pedregal - Car Pedregal - Car Pedregal - Car Confluence) - San (confluence) - San Confluence) - San (confluence) - Car Santa Ana - (co Carales - (co</pre>
*.	Spe. (R - 1/1) (R - 1/2) (R - 1/3) (R - 2/4) (R - 2/4) (R - 2/4) (R - 2/4) (R - 2/4) (R - 2/4) (R - 2/1) (R - 2/1) (R - 10/-) (R - 21/23) (R

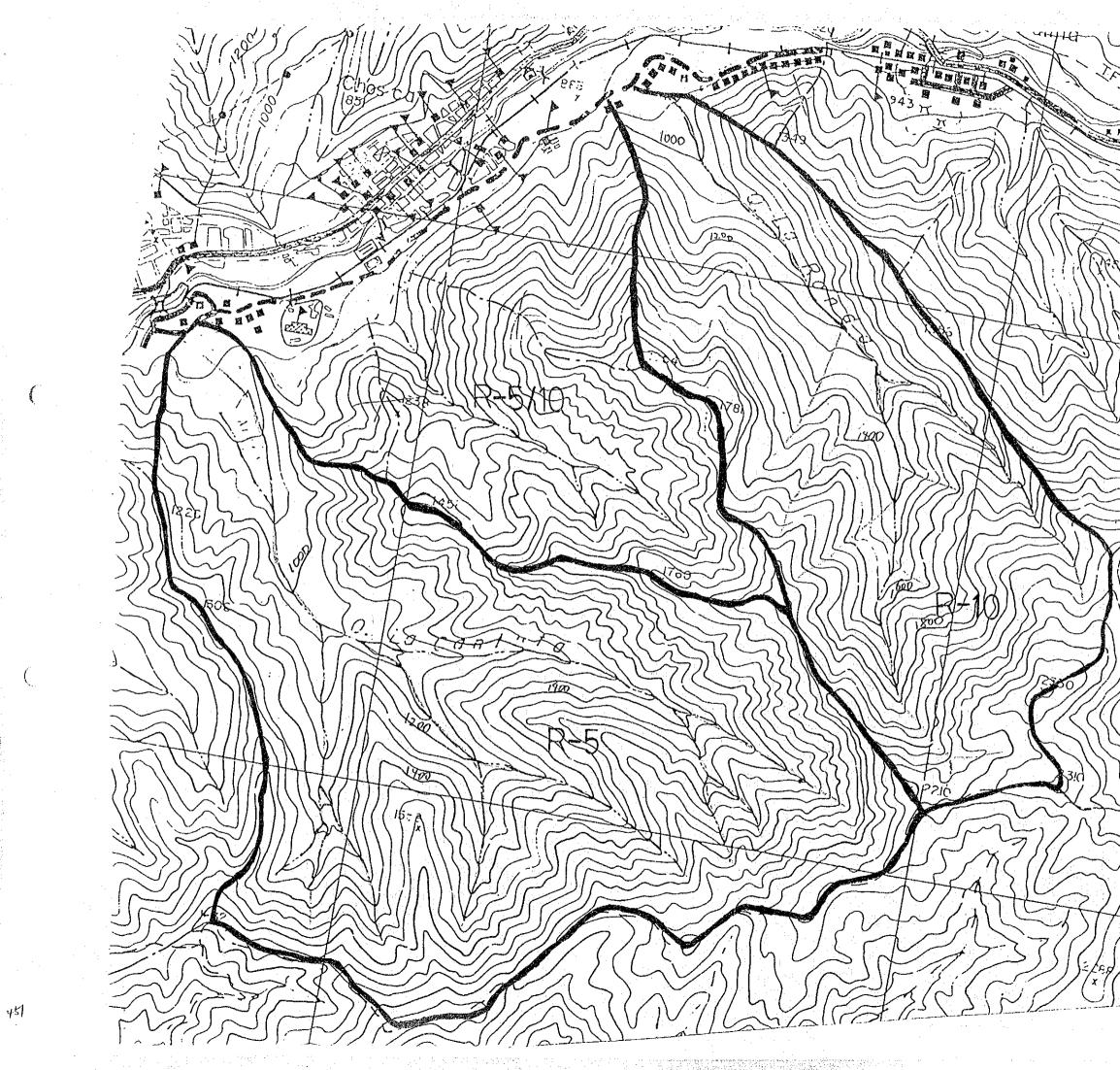
		•	Table	ц Ч	PRINCIPAL FEATURE	LATURE OF	F SLOPE AREAS	AS (2/2)			
т. г.*	*2 Name of	s to to	*3 1. et an co	*4 Section	*5 Slope	. *6 Area	.*7 Slope Elev	*8 Elevation (m)	6 *	*10 Åverage	*11 Slope
		2	([四])	(m)	(B)	(km2)	Highest	Lovest	rergne. (m)	Y	рал Д
Ĩ	(Confluence)	- Cashahuscra (b)	3) 56.3	1,500	2,100	1.5	1,550	950	600	3.5	15.9
	(Confluence)	- Alcula (B)	60 3 10 3	009	2,100	18.0	2,200	1,160	1,040	2.0	26.3
(S-2/3) (S-2/3)	Lasnanuacra Redonda	- Infiernillo (1	(B) 63 6	200 000 000	4 150 050	10.4	2,400	1,090	1,310		17.5
(S-3/5)	Infiernillo		67.2	4,600	2,600	4 4 7	2.760	1 450	1.310	0.0	1 2 2 1 2 2 1 2 2 2 2 2 2 2 2 2 2 2 2 2
(9/ 1 -5)	Alcula	- Santo Domingo	67.4	4,300	4,300	11.1	3,450	1,450	2,000	2.2	24.9
_ :	Lucuma	- Huanchunya	76.9	3,900	3,050	о. З.О	3,200	1,630	1,570	6 T	27.2
(8-0/8)	Santo Domingo	- San Antonio	71.5	2,800	3,750	5.4	3,400	1,640	I,760	2.1	25.1
	Nearo : -		22	1,100	2,100	4	3,200	1,740	I,460	1 4	34.8
i A	Vado	- Mito Mito	75.4	4,200	4,200	7.9	ي 2000 770	2 040 2 080	1,500	а Ч Г	29 L
์ร	Mito Mito	- del Zorrillo	78.6	2,700	3,850	7.6	3,970	200	1.770	5.5	24.7
1	R.Carhuayuma	- Carhuachayo	80.0	4,300	3,750	8.4	4,250	2,200	2,050	1.8	28.7
a	del Zorrillo	- Marcopuquio	80.7	1,500	1,850	1.3	3,300	2,270	1,030	1.8	29.1
(01/71-2)	ornbndooreu	- Maquerhua	82°3	1,700	1.850		3,450	2,350	1,100	7 7	30.7
	carnuacuayo Magnarhus	- Unstramayilo		4,900	4 400 000 000	11-2	4,820	2.570	2,250	2.2	24 7
	The Tremewillo	- rozo Chiloneate				 	4,200		1,050	- -	30.5
<u>}</u>	Prov	- Withcacocha	00 0 0 0	222		0 r n v	4,240		1 440	α. 	29.0
22)	Huancacocha	- Acohamha	5 6 6	2, 600 600						1 4	0 c 7 c
5	Chilcacocha	- Pillihua	91.3	1.000	006	- 7 - 0	3,700	200	2002	2 m	21.0
25)	Pillihua	- R.Shuncha	2 76	5,700	2,800	5	4,730	9,400	1,330	5 1	25.4
(S-22/23)	Acobamba	- Collque	64.7	3,200	2,800	4.7	4,480	3,350	1,130	2.5	22.0
(S-23/26)	Collque	- Huasca	102.2	11,800	2,850	20.7	5,230	3,970	1,260	2.3	23.9
(2-24/20)	K. Shuncha Yanar		1001	5,200	1,650	4	4,650	л 780 200	870	о с н с	27.8
~ 1	raliac	- A.FALLCA	4.CU.	o, 400	2, 500 s	. TO. /	000.0	3,980	1,080	2.3	23 4
Remarks :	*5 *5 * Roni rui *5 *5 * Roni rui	ver mouth to	the middl	the middle reach of	f the section			80 (* *			
		Blevation at lovenst slope	slone			* *	*10 : *5 / *5 *11 : Deoree	بر (۵)			
	-			•		-	•		-		

• •



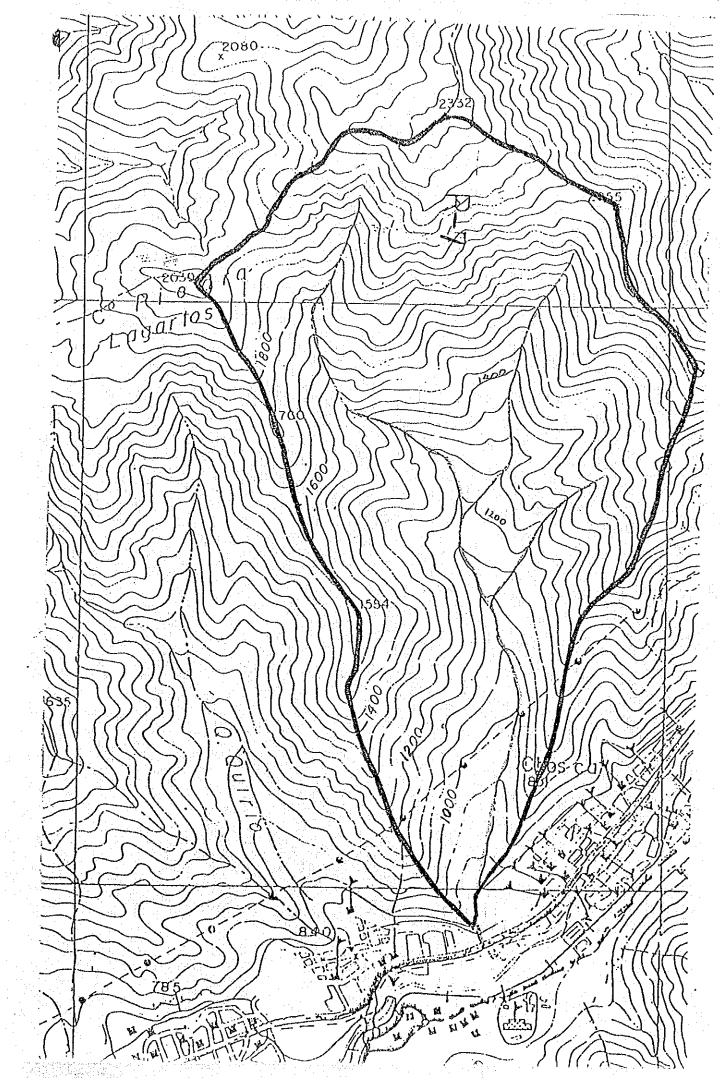
wР

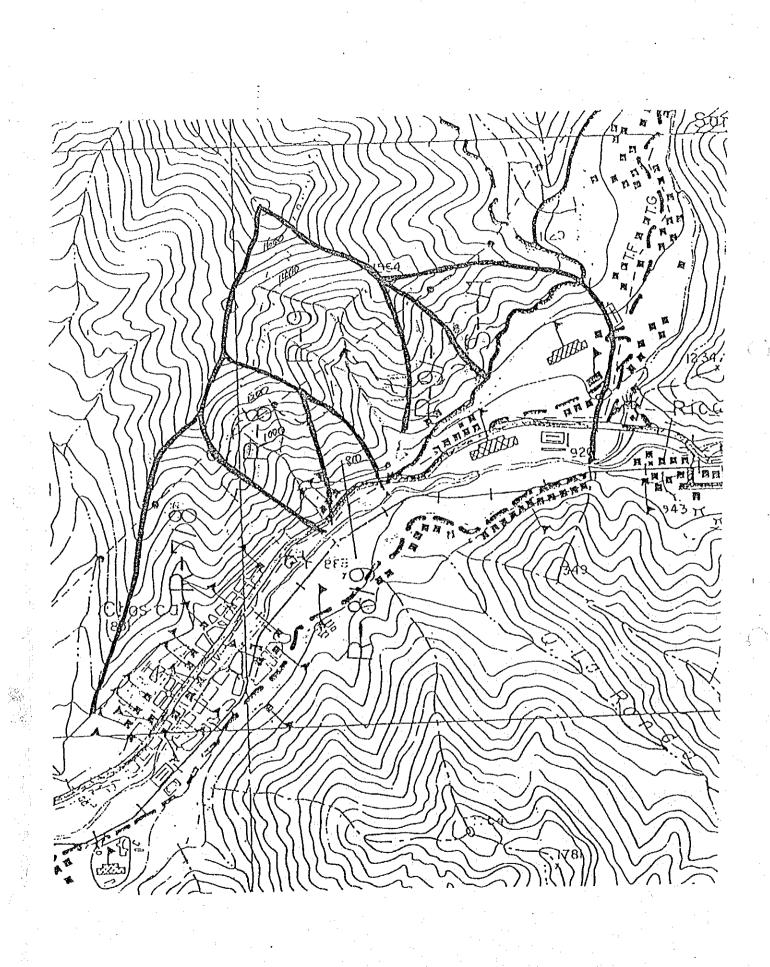


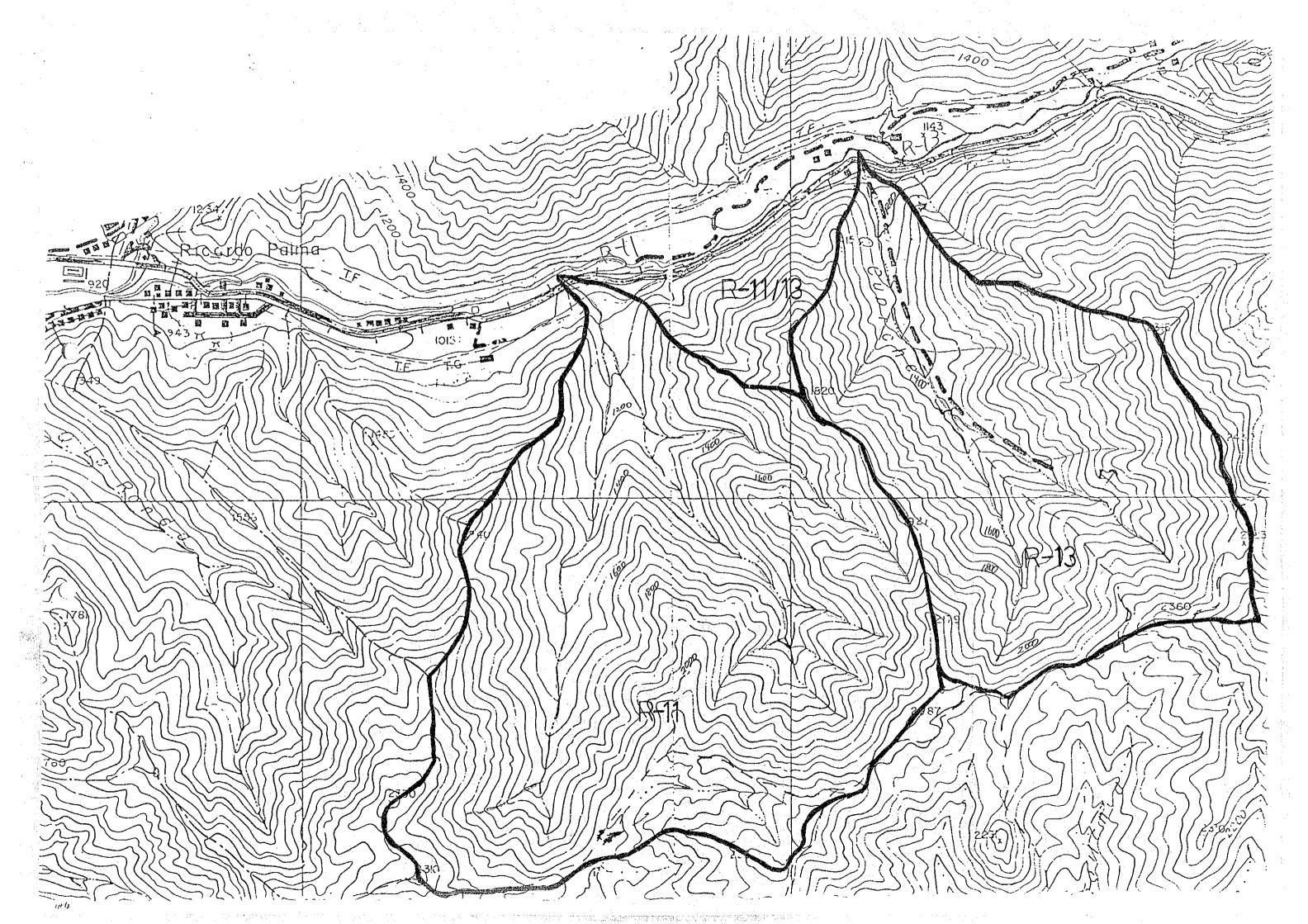


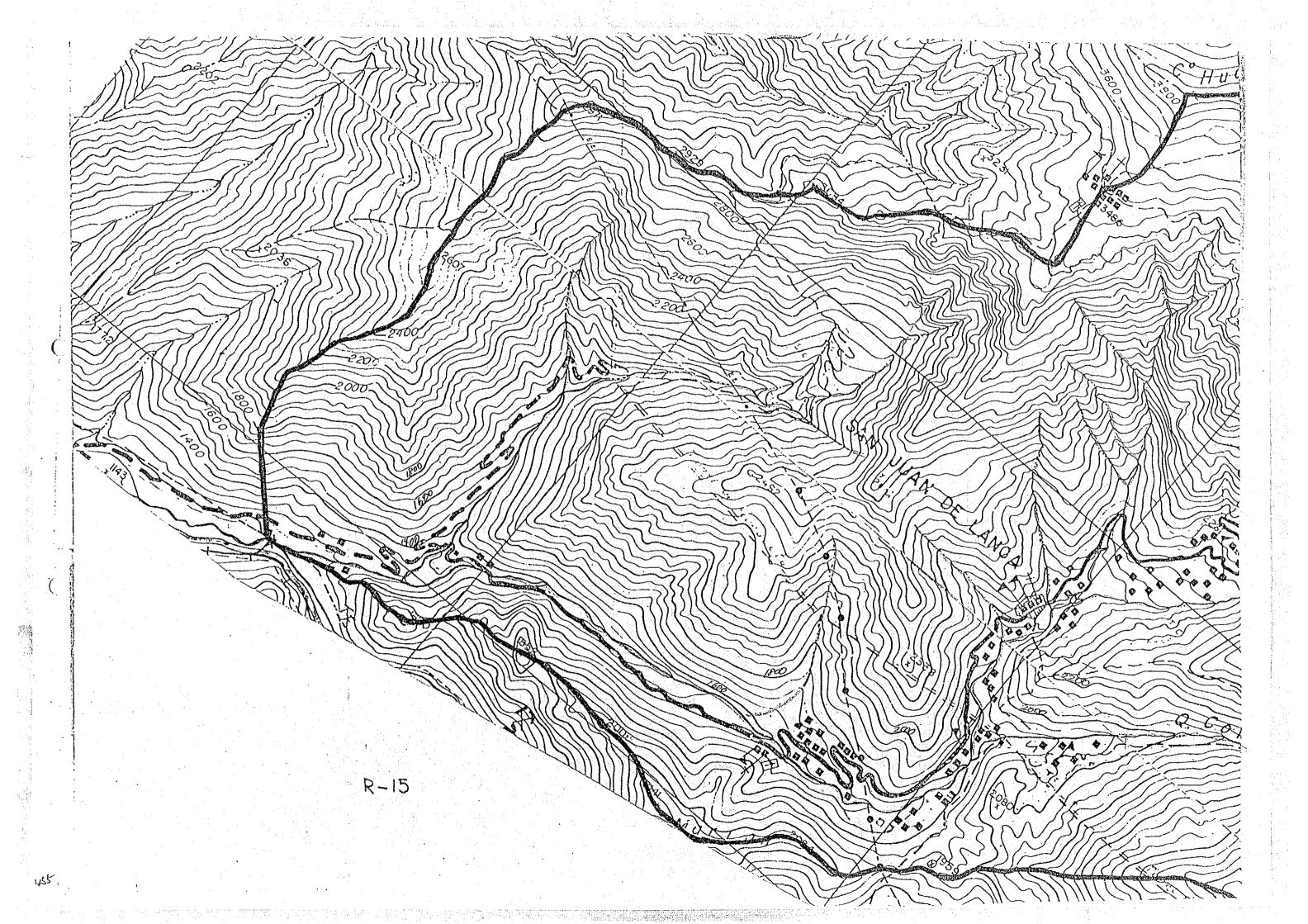
A Main Marchan D I IT 1015 : , Less our T.G -- 600 Ģ · "st ---- $\overline{\mathbf{n}}$ <N rái











landar (m. 1997) 1997 - Maria Maria, Maria Maria 1997 - Maria Maria, Maria Maria, Maria

